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THE CARIBBEAN BASIN

A REFRACTIVITY STUDY

by

Capt Robert J. Farrell, Jr.

DECEMBER 1989



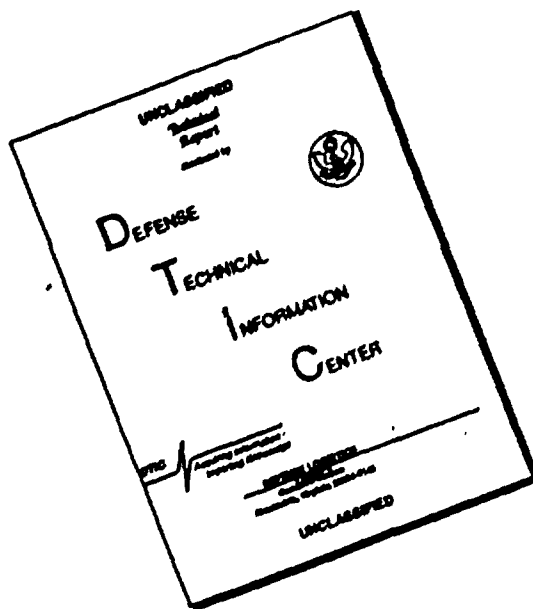
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REVIEW AND APPROVAL STATEMENT

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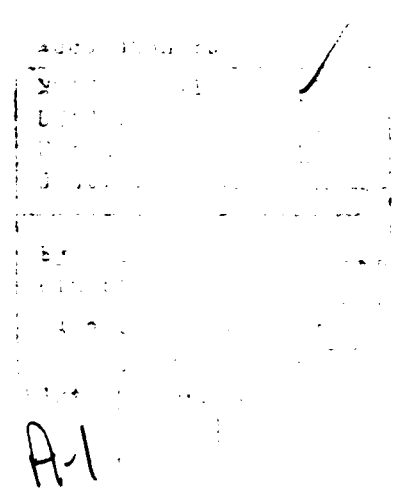
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13. Abstract: A descriptive climatology of atmospheric refractivity in the Caribbean Basin, prepared from USAFETAC'S upper-air climatic database. Climatologies are provided by season and by hour. Actual climatologies (in an appendix) are preceded by a review of refractivity theory, a discussion of the meteorology of anomalous propagation, an explanation of the presentation scheme, and a summary of the climatologies.
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PREFACE

This report was prepared by the USAF Environmental Technical Applications Center's (USAFETAC's) System Support Section (ECA) for 5WW/DNC, Langley AFB, VA 23665-5000, under Project 70332 as part of a larger request for a comprehensive climatology of the Caribbean Basin. The report provides a descriptive climatology of refractivity in that region. It completes USAFETAC's total Caribbean Basin climatology study, which consists of USAFETAC/TN-89/003, *The Caribbean Basin--A Climatological Study*; USAFETAC/TN-89/004, *The Caribbean Basin--An Electrooptical Climatology for the 8-12 Micron Band, Volume I--Central America*; USAFETAC/TN-89/005, *The Caribbean Basin--An Electrooptical Climatology for the 8-12 Micron Band, Volume II--The West Indies*; and USAFETAC/TN-89/006, *The Caribbean Basin--An Electrooptical Climatology for the 8-12 Micron Band, Volume III--Northern South America*.

The efficiency of many modern weapons, surveillance, and communications systems relies on the propagation of electromagnetic radiation through the atmosphere: the effectiveness of these systems can be significantly impaired by anomalous refractivity profiles. Dependable climatology and accurate anomalous propagation forecasts (specifically, vertical profiles of critical refractivity variables) are becoming increasingly mission-critical and must be made available to those who plan for and use these kinds of systems. The use of combat air power, in particular, is dependent upon sound knowledge of atmospheric propagation conditions.

Using USAFETAC's limited upper-air database and software developed in-house, ECA prepared refractivity climatologies for 31 stations in the Caribbean Basin; periods of record depended on data availability. Seventeen of those climatologies are provided here by season (as defined in USAFETAC/TN-89/003), by hour, and by height. Before the report discusses actual regional refractivity climatology, it provides a review of refractivity theory and the meteorology of anomalous propagation.

There have been three important changes in methodology since producing the first refractive climatology (for the Persian Gulf). These changes are:

1. The definitions of "percent occurrence frequency" (POF) in Tables C and D have been changed. In the Persian Gulf study, each 30-meter (or 50-meter, above 5,000 meters) layer was counted as a separate occurrence (up to 33 observations per sounding, per layer). In this study, each sounding accounted for only one occurrence. As a result, the new definition of POF can be translated directly into percent time of occurrence.
2. A map depicting the three AP categories has been added to Appendix A.
3. Height increments have been changed to increase resolution in the lower 5,000 feet. Labeling of tables was changed to emphasize the fact that the statistics are for a given *layer*, rather than for a *height*.

Although USAFETAC/ECA hopes that the data will be useful for both planning and operational forecasting, our second attempt to produce a refractivity climatology should still be considered *experimental*. Comments, suggestions, or criticisms will help us refine the formats into a more useful and workable operational tool and are welcome. Contact USAFETAC/ECA, Scott AFB, IL 62225-5438, DSN.576-5944.

The author wishes to thank SSgt Catherine Bird for assembling the large appendices this work required--it was a monumental and tedious job.

CONTENTS

	Page
Chapter 1 REVIEW OF REFRACTIVITY THEORY	
General Discussion	1
Standard (Normal) Refraction.....	2
Subrefraction.....	2
Superrefraction.....	3
Ducting (Trapping)	3
Gradient.....	3
Frequency.....	5
Thickness	5
Elevation Angle	6
Chapter 2 THE METEOROLOGY OF ANOMALOUS PROPAGATION (AP)	
Anomalous Propagation	8
Subrefractive Layers	8
Superrefractive Layers	9
Chapter 3 HOW THE CLIMATOLOGY IS PRESENTED	
Data Manipulation	14
Weather Stations Used	14
Seasons	16
Sounding Times Vs. Weather Extremes	16
Climatological Data Formats	17
Percent Occurrence Frequencies	17
Site-Specific Data	17
Height Increments	17
Data Grouping and Presentation	17
N Percentiles	17
dN/dh Percentiles	18
Refractivity Category Tables	18
Layer Thickness Tables	18
Chapter 4 DESCRIPTIVE REFRACTIVITY SUMMARIES	
Central America	21
Wet Season.....	21
Wet-to-Dry Transition.....	22
Dry Season	22
Dry-to-Wet Transition.....	23
West Indies.....	24
Wet Season.....	24
Wet-to-Dry Transition.....	25
Dry Season	25
Dry-to-Wet Transition.....	26
Northern South America	27
The Colombian Caribbean Plain	27
Wet Season.....	27
Dry Season	28
The Venezuelan North Coast	29
Wet Season.....	29
Wet-to-Dry Transition.....	30
Dry Season	30

Chapter 4 DESCRIPTIVE REFRACTIVITY SUMMARIES, Cont'd

The Lake Maracaibo Basin	31
Wet Season.....	31
Wet-to-Dry Transition.....	32
Dry Season	32
Dry-to-Wet Transition.....	32
The Venezuelan Andes	33
The Orinoco River Basin	34
The Guyana Coastal Plain.....	35
Wet Season.....	35
Wet-to-Dry Transition.....	36
Dry Season	36
Dry-to-Wet Transition.....	36
The Guyana and Colombian Highlands	37
The Andes Mountains	38
The Colombian Pacific Coastal Plain	39
Wet Season.....	39
The Ecuadorian Pacific Coast	41
The Eastern (Lower) Amazon Basin	42
Wet Season	42
Wet-to-Dry Transition.....	43
Dry Season	43
Dry-to-Wet Transition.....	43
The Western (Upper) Amazon Basin.....	44
 BIBLIOGRAPHY	 45
 APPENDIX A--PERCENT OCCURRENCE FREQUENCY OF AP	 A-1
 APPENDIX B--SITE-SPECIFIC REFRACTIVE CLIMATOLOGY	 B-1

FIGURES

Figure 1	Snell's Law Schematic.....	1
Figure 2	Typical Wave Propagation Through the Atmosphere With Each of the Four Types of Vertical Gradient.....	3
Figure 3	Typical Modified Refractivity (<i>M</i>) Profiles and Associated Propagation Paths for (a) Surface Duct, (b) Elevated Surface Duct, and (c) Elevated Duct (from Turton et al., 1988).....	4
Figure 4	Critical Angle (Angle of Penetration) for Surface and Elevated Layers.....	6
Figure 5a	Ray Refraction by an Elevated Layer, Radar Just Below Layer.....	7
Figure 5b	Ray Refraction by an Elevated Layer, Radar Above Layer.....	7
Figure 6	The Trade Wind Inversion Illustrated.....	8
Figure 7a	Refractivity Regions (labeled A-F) in Vicinity of Mid-latitude System.....	9
Figure 7b	Profiles Associated with Regional Type (A-F) in Figure 7a (Moreland, 1965).....	10
Figure 8	Global Frequency of Duct Occurrence (Miller et al, 1979).....	11
Figure 9	A Duct Created by a Sea-Breeze Circulation.....	11
Figure 10	Locations of the Upper-Air Reporting Stations Used in the Caribbean Basin Refractivity Study.....	13
Figure 11	Seasonal Subregions in the Caribbean Basin.....	15
Figure 12	Northern South America Subregions (from USAFETAC/TN-89/006).....	19
Figure 13	The Colombian Caribbean Plain.....	27
Figure 14	The Venezuelan North Coast.....	29
Figure 15	The Lake Maracaibo Basin.....	31
Figure 16	The Venezuelan Andes.....	33
Figure 17	The Orinoco River Basin.....	34
Figure 18	The Guyana Coastal Plain.....	35
Figure 19	The Guyana and Colombian Highlands.....	37
Figure 20	The Andes Mountains.....	38
Figure 21	The Colombian Pacific Coast Plain.....	39
Figure 22	The Ecuadorian Pacific Coast.....	41
Figure 23	The Eastern (Lower) Amazon Basin.....	42
Figure 24	The Western (Upper) Amazon Basin.....	44

TABLES

TABLE 1.	Refractivity Categories.....	2
TABLE 2.	Minimum Frequency (GHz) that may be trapped as a function of refractivity and layer depth (from AWS/FM-100/014).....	5
TABLE 3.	Stations Used in Refractivity Study.....	14
TABLE 4.	Seasons of the Caribbean Basin's 12 Subregions.....	16
TABLE 5.	Data Type Key.....	17

Chapter 1

REVIEW OF REFRACTIVITY THEORY

General Discussion. The transmission of electromagnetic (EM) signals through a medium is affected by the absorption and re-emission of EM energy by the atomic and molecular elements of that medium. The dielectric constant (ϵ) can be used to describe these effects; it is expressed as:

$$\epsilon \equiv (c/v)^2 \quad (1)$$

where c is the phase speed in a vacuum (i.e., the speed of light) and v is the phase speed in the medium. But rather than deal with velocity, physicists prefer to use an "index of refraction" (n), expressed as:

$$n \equiv c/v = \sqrt{\epsilon} \quad (2)$$

The index of refraction in a vacuum is unity. The index of refraction of air at radio frequencies is approximately 1.000326. Atmospheric values are so near unity that it is more convenient to use "refractivity" (N), the number of parts per million by which n exceeds unity. N is expressed as:

$$N \equiv (n - 1) \cdot 10^6 \quad (3)$$

A generally accepted relationship for the dependence of atmospheric refractivity on the state variables is expressed as:

$$N = 77.6P/T + 3.73 \cdot 10^5 e/T^2 \quad (4)$$

where: P = pressure (mb)

T = temperature (K)

e = water vapor pressure (mb)

This empirical equation is correct to within 0.5% for atmospheric pressures between 200 and 1,100mb, temperatures between 240 and 310K, water vapor pressures less than 30mb, and radio frequencies less than 30GHz (Bean and Dutton, 1966). Outside the absorption bands of oxygen and water vapor, it is generally usable for frequencies up to 1,000GHz (Hall, 1979).

As an EM ray passes through a surface that separates two media of differing densities, most of the energy is

scattered in the forward direction, but at an angle to the incident ray. The amount of deflection is described by Snell's Law:

$$\frac{\sin \theta_1}{\sin \theta_2} = \frac{n_2}{n_1} \quad (5)$$

where θ_1 is the angle of incidence upon the surface and θ_2 is the angle of refraction. Therefore, the amount of deflection is proportional to the ratio of refractivities of the two media. See Figure 1.

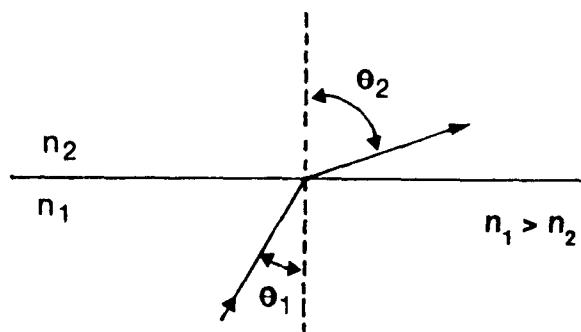


Figure 1. Snell's Law Schematic.

Since refractivity is dependent on pressure, temperature, and moisture (see Equation 4), and since these state variables vary throughout the troposphere, there are gradients of refractivity and, as a consequence, EM rays bend as they pass through the troposphere. Since the state variables usually vary much less in the horizontal than in the vertical, horizontal gradients of refractivity are usually negligible compared to those in the vertical. But sharp transitions in topography, such as coastlines or desert-plateaus, can produce large horizontal gradients, and often do. This condition poses significant problems in forecasting refractivity profiles.

Even under normal conditions, the vertical gradients in refractivity caused by changes in P , T , and e with altitude produce some bending of the path of an EM ray. Under certain atmospheric conditions, excessive bending can seriously limit performance of systems that use electromagnetic radiation. Under extreme conditions, the rapidly varying refractivity in the troposphere produces extreme bending that can trap the energy in a duct and channel it over great distances, a phenomenon that may or may not be advantageous.

An important point to note is that the time constant (lag) of radiosonde instruments causes underestimations of the rate of change of refractivity with altitude. When a radiosonde passes rapidly through layers of markedly different refractivity (as when it goes in and out of cloud layers), the resulting observation might not show the presence of a refractivity gradient that could impair a system's performance. Extreme care, therefore, must be taken when analyzing such data. Tests comparing radiosonde and refractometer data indicate that any study of the frequency of occurrence and strength of radio ducting using synoptic data will underestimate the frequency for ducts with thicknesses less than 900 feet and the strength of ducts in general (Morrissey et al., 1986).

Another problem in using radiosonde data to produce refractivity climatologies is that the data is generally collected at only two fixed times: 0000Z and 1200Z.

These times, unfortunately, seldom reflect full diurnal changes and there is no assurance that local times coincide with periods of minimum, average, or maximum refractive gradients. Chapter 3 discusses how this problem affects the Caribbean Basin.

The four categories of refraction (*standard*, *subrefractive*, *superrefractive*, and *ducting*) are identified on the basis of change in refractivity through a given layer in the troposphere. They were selected on the basis of the effect they have on an EM ray propagating through a layer. Anything other than "standard" refraction is referred to as anomalous propagation, or "AP." The numerical break-out shown in Table 1 was adopted for this study because it seems to be the most widely used. Keep in mind, however, that breakouts may differ in other studies and in other applications. Chapter 2 discusses meteorological conditions conducive to the formation of each refractivity category.

TABLE 1. Refractivity Categories. Units are refractivity units per kilometer. *M* is a modified refractivity derived to simplify duct detection--see page 3.

<u>Standard</u>	<u>Subrefraction</u>	<u>Superrefraction</u>	<u>Ducting</u>
$-100 < dN/dh \leq 0$	$0 < dN/dh$	$-157 < dN/dh \leq -100$	$dN/dh \leq -157$
$57 < dM/dh \leq +157$	$+157 < dM/dh$	$0 < dM/dh \leq 57$	$dM/dh \leq 0$

Standard (or normal) refraction is defined as the condition that exists when dN/dh within a tropospheric layer is approximately equal to that observed in the standard atmosphere (between 0 and -100 N-units/Km). Rays propagating through a layer with a standard gradient will bend downward slightly and result in a radio horizon that is slightly greater than the optical horizon (See Figure 2). This means that a radar can "see" farther than an optical device under standard atmospheric conditions. This curvature would appear to be straight if the earth's radius were 4/3 of what it actually is; hence the reason for the "4/3 earth concept" advanced by Schelleng, Burrows, and Ferrell in 1933. This concept assumes an earth larger than actual and allows radio rays to be drawn as straight, rather than curved, as would be necessary on an earth with true radius. This method of accounting for atmospheric refraction permits tremendous simplification in the computation of radio field strengths even though the distribution of refractivity

(linear with height) implied by this method is realistic only in the bottom kilometer of the atmosphere.

Subrefraction is defined as a condition during which dN/dh within a layer is positive; that is, N increasing with height. EM rays in the radio-wave portion of the spectrum that are propagated through a subrefractive layer are bent downward less than would occur in the standard atmosphere and may even curve upward, as shown in Figure 2. The effects of subrefraction are largely dependent on the geometry of the propagation path. In general, greatly shortened ranges are experienced on surface-to-surface systems and on surface-to-air systems operating at low elevations. A radar looking through a subrefractive layer at a distant target (i.e., with a low elevation angle) will misinterpret its position: the target will appear to be farther downrange and at a lower altitude than it actually is.

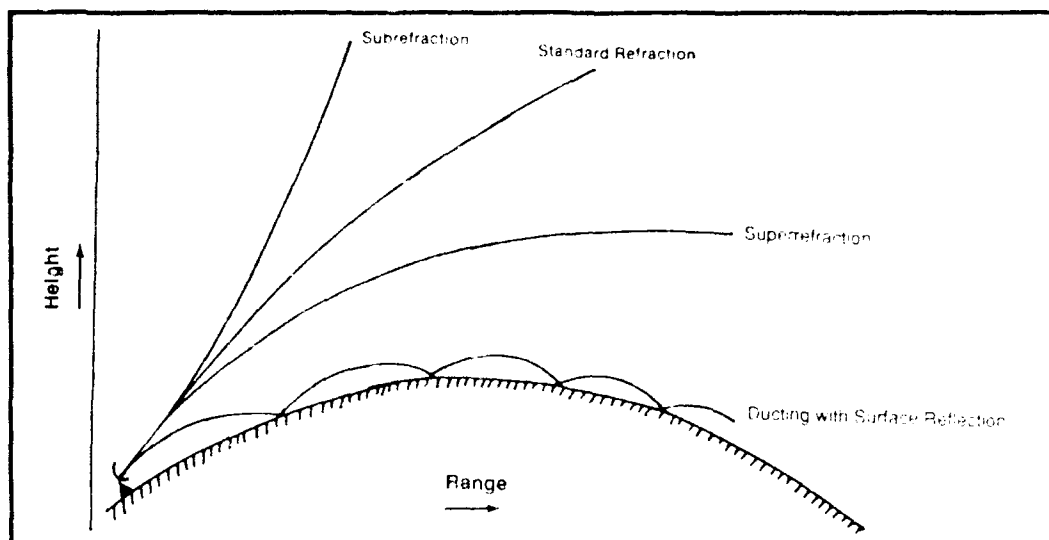


Figure 2. Typical Wave Propagation Through the Atmosphere With Each of the Four Types of Vertical Gradient.

Superrefraction is defined as a condition during which dN/dh within a layer is much less than that observed in the standard atmosphere (between -157 and -100 N-units/Km). Rays propagated through a superrefractive layer are bent downward much more than normal, resulting in extended propagation ranges as shown in Figure 2. A radar looking through a superrefractive layer at a distant target (i.e., with a low elevation angle) will also misinterpret its position, but in this case the target will appear to be closer and higher than it actually is. EM rays passing through superrefractive layers will also experience broadening of the beam width. This creates two problems. First, target resolution is diminished. Second, the power that reaches the target is reduced, producing a lower reflectivity than is actually the case.

Ducting (or trapping) is an extreme case of superrefraction that occurs when dN/dh through a layer is less than or equal to -157 N-units/Km. This gradient bends rays toward the earth. EM rays transmitted within the duct will be partially confined and channeled between the duct's top and bottom (the "trapping layer"—see Figure 3). When this occurs, ranges greatly exceed normal coverage. Over water, ducting tends to enhance sea clutter and make it more difficult to discriminate smaller targets just above the sea surface from background noise, especially in the presence of suspended dust and sand. This can result in the intermittent detection of real targets and in the appearance of false targets induced by atmospheric. This definition of ducting can be misleading, however, in that the presence of a ducting gradient is only *one* of the conditions necessary for actual ducting of EM energy to

occur. In any event, rays propagated through a ducting gradient will be bent downward more than those propagated through a superrefractive one. The specific criteria for actual trapping or "guiding" of the energy in a layer of finite depth is dependent upon four things:

- *Refractivity gradient*
- *Vertical extent of the layer (thickness)*
- *Frequency of the EM energy*
- *Elevation angle of the ray.*

Gradient. A modified refractivity was derived to simplify duct detection:

$$M \equiv N + (h/r) \cdot 10^6 \quad (6)$$

where h is the height above the earth surface at which M is calculated, and r is the earth's radius. The property that makes M useful is that its gradient dM/dh is zero at any elevation for which the ray path, transmitted horizontally, is a circular arc concentric with the surface of the earth. Therefore, there are ducts whenever $dM/dh \leq 0$.

Assuming the radius of the spherical earth (r) to be 6,378 km, there is a simple relationship between M and N gradients (units per kilometer):

$$dM/dh = dN/dh + 157 \quad (7)$$

There are many other modifications to refractivity. Each is useful for different ray tracing problems and synoptic studies of refractivity, and each results in a particular simplification in ray geometry. (For a thorough discussion of these modifications, see Moreland, 1965.) The unmodified refractivity (N) is used in this report because it is a basic physical quantity:

as such, it is more easily understood than the others. For identifying types of ducts, however, M is most useful and is therefore employed in the following discussion.

Four different types of ducts can be identified by their characteristics, approximated in Figure 3 by straight line segments of vertical M -profiles.

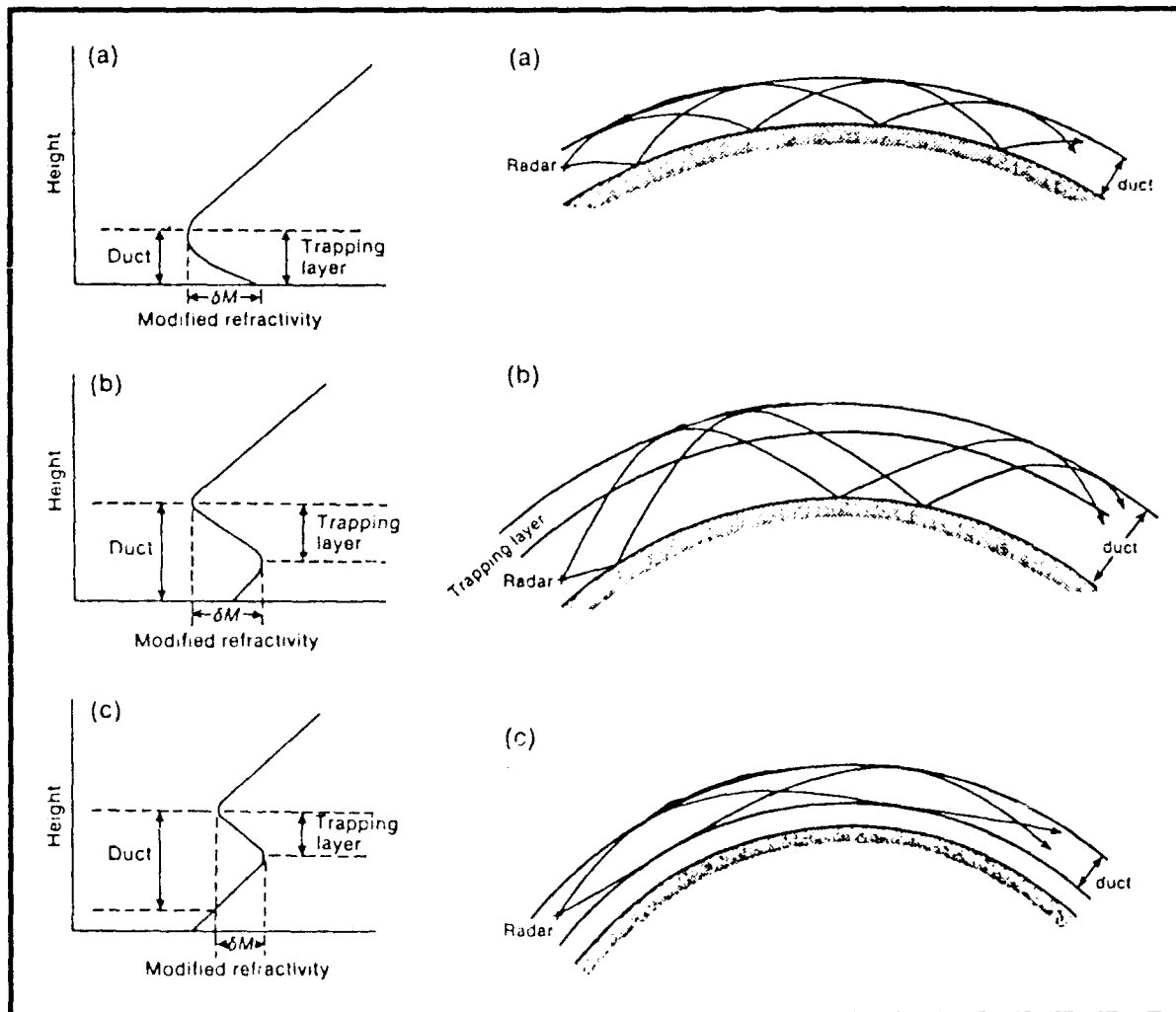


Figure 3. Typical Modified Refractivity (M) Profiles and Associated Propagation Paths for (a) Surface Duct, (b) Elevated Surface Duct, and (c) Elevated Duct (from Turton et al., 1988).

In (a), there is a surface duct in the height range from the ground to the inflection point, where dM/dh changes from a negative value (or zero) to a positive value. The top height averages less than 1,500 feet. The inset diagram to the right of sounding (a) shows how a beam behaves in a surface duct. Rays emanating from inside a duct below the critical elevation angle will be trapped between the top and the surface.

A second inflection point at a lower height—shown in (b)—leads to an elevated surface duct if the M -value at the earth surface is lower than at the lower inflection point, but not as low as that at the upper inflection point. This marks the distinction between this and the elevated duct in (c). The propagation diagram to the right of sounding (b) shows how a beam behaves in this type of duct. Note that its propagation path is very different than that of sounding (c).

In (c), M is lower at the ground than at the upper inflection point. The term "optimum coupling height" for the lower inflection point refers to the fact that a maximum number of rays from a given bundle, and hence a maximum of energy, is trapped there. If a transmitter is positioned higher or lower in the duct, a lesser range of elevation angles would lead to ducting.

The propagation diagram to the right of sounding (c) shows that even though there is a trapping layer, the rays don't reflect off the surface. During such events, surface clutter is almost eliminated.

Not shown is an evaporation duct that occurs from the ground to the inflection point, with top height averaging only 13 meters (42 feet). The distinction between this phenomenon and a surface duct is that this one is produced solely from evaporation over water surfaces. The resulting sharp vertical gradient in moisture creates a very sharp vertical gradient in refractivity.

Frequency. The minimum frequency of EM energy that may be ducted without consideration of the penetration angle of the ray is specified by the following equation (adapted from AWS/FM 100/014, 1980):

$$f_{min} = C(G)^{1/2}(d)^{1/2} \quad (8)$$

where

f_{min} = minimum frequency (hertz) that may be trapped.

$C = 1.1933 \times 10^7$ for *water* ducts (AWS/FM 014, 1980).

$C = 7.8947 \times 10^7$ for *elevated* ducts (Turton et al., 1988).

$$G = \left(\frac{N_b - N_t}{d} \right)^2 (157)$$

where: N_b = refractivity at the bottom of the layer

N_t = refractivity at the top of the layer

d = depth of layer in meters

Thickness. Table 2 lists frequencies that may be trapped for various layer depth dN/dh value combinations obtained from Equation 8. Note that the minimum frequency (maximum wavelength) that may be trapped decreases (wavelength increases) as the depth of the layer increases for a given dN/dh . Keep in mind, however, that these values do not represent strict cutoff conditions. Although radiation at the specified frequencies and higher is strongly guided, radiation at several times lower than these frequencies may also be affected by the duct. This happens because the thickness of a natural duct doesn't have a sharp limit (Bean and Dutton, 1966).

TABLE 2. Minimum Frequency (GHz) that may be trapped as a function of refractivity gradient and layer depth (from AWS/FM-100/014).

LAYER DEPTH (m)	REFRACTIVITY GRADIENT (N-units/1 km)					
	.158	.200	.300	.800	1.200	2.000
15	65GHz	9.9GHz	4.2GHz	2.6GHz	2.0GHz	1.56GHz
30	23	3.5	1.5	.9	.7	.53
45	12.5	1.9	.8	.5	.4	.29
60	8.1	1.2	.5	.3	.25	.19
90	4.4	.68	.3	.17	.137	.10
100	3.8	.58	.24	.15	.117	.09
150	2.05	.31	.13	.08	.06	.07
200	1.34	.20	.09	.05	.04	.03
300	.73	.11	.05	.03	.02	.017
400	.47	.07	.03	.02	.014	.011
500	.38	.05	.02	.013	.010	.008

Elevation Angle. Although Equation 8 provides a means for determining the minimum frequency of the EM radiation that may be trapped for a given layer, this condition only applies to those rays emanating from the system at elevation angles less than or equal to the penetration angle for the given layer. The critical elevation angle (or penetration angle) for a given layer is a function of the vertical refractivity gradient, the vertical extent of the layer, and the location of the system with respect to the layer. Although frequency is not a variable in Equation 9, the conditions of Equation 8 must first be met. The critical angle for a given trapping layer is given by equations 9a and 9b; the former is from AWS/FM-100/014; the latter, from Hall, 1979.

$$\theta_c = \sqrt{2(N_s - N_h - 156.9(\Delta h))} \quad (9a)$$

$$\theta_c = \sqrt{2(M_s - M_h) \cdot 10^6} \quad (9b)$$

Where:

θ_c = critical or penetration angle in milliradians

N_s, M_s = refractivity at the surface

N_h, M_h = refractivity at the top of the layer

Δh = vertical thickness of the layer (surface to height h) in kilometers

Figure 4 shows the refractivity gradients required for trapping of radar energy emanating from a surface-based radar for a layer depth of 100 meters (328 feet) as a function of layer height (H) and penetration angle (θ_c). Some of the gradients shown in this figure are not "real world," but are included to show theoretical possibilities. The most extreme N gradients observed in nature are in the vicinity of -2,000 to -2,500 N-units per km (Lammers et al. 1980); in each case, these gradients were measured close to the earth's surface and over layer depths significantly less than 100 meters (328 feet).

The important point to be inferred from Figure 4 is that even under the most extreme conditions, the maximum penetration angle will not greatly exceed 1 degree--in reality, it rarely exceeds .5 degree. Frequency considerations were not applied here and would have to be considered for each actual case.

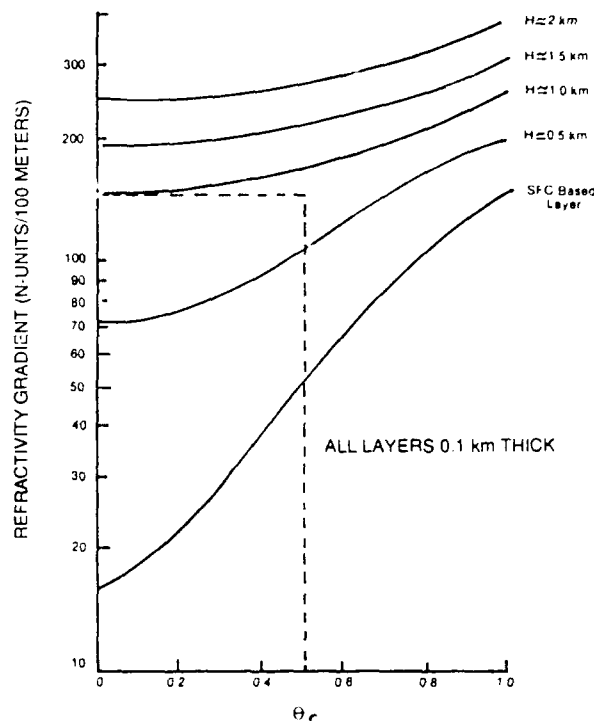


Figure 4. Critical Angle (Angle of Penetration) for Surface and Elevated Layers. The area enclosed by the dashed box includes the most frequently observed gradients (from AWS/FM-100/014).

Figure 4 indicates that energy is not trapped at elevation angles above .5 degree for most applications; remember, however, that the shape of the beam in almost all systems ensures that some energy is propagated below .5 degree. Also, this theoretical development is based on the assumption of "horizontal stratification." The presence of tilted layers (which have been observed in the real world) could result in the ducting of energy propagated at elevation angles greater than 1 degree. Therefore, there is some potential for trapping in situations where ducting gradients are present regardless of the elevation angle of the system. Actual effects are system-dependent.

If the N gradient is less than -157 N-units per Km (that is, if the M gradient is negative) and uniform within the duct, rays starting at elevation angles below θ_c will strike the ground, while those greater than θ_c will escape the duct. This produces "holes" or "shadows" in the coverage of EM systems, along with excessive ground clutter. These effects are shown in Figures 5a and 5b (after Moreland, 1965). They can offer distinct offensive advantages or defensive disadvantages.

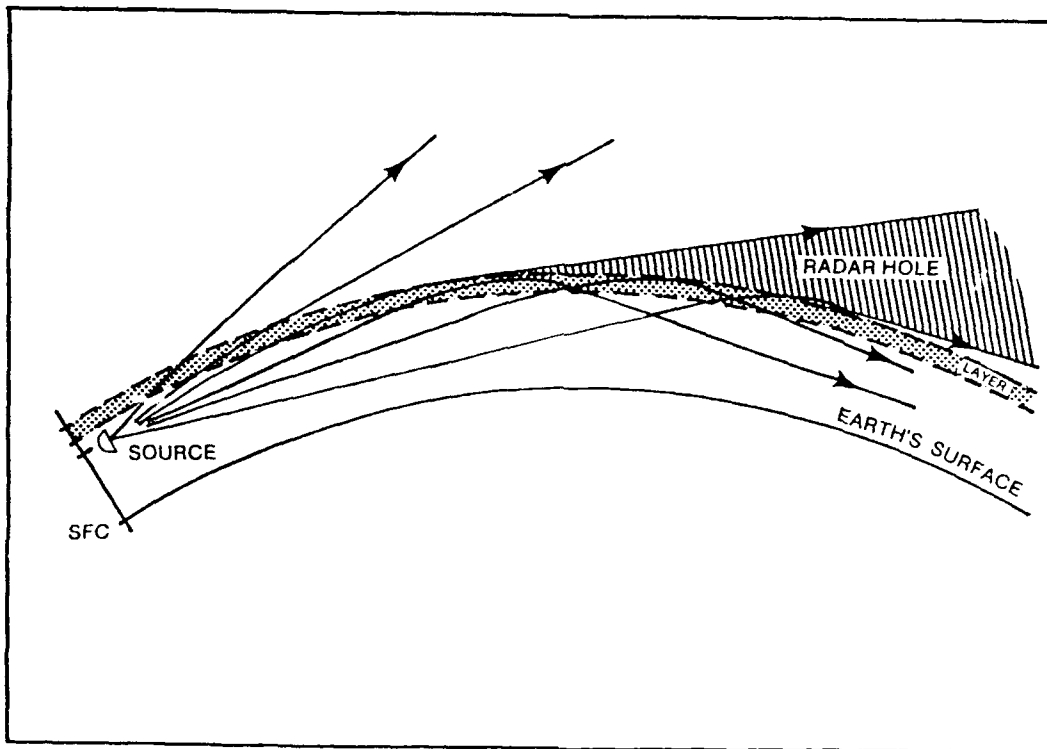


Figure 5a. Ray Refraction by an Elevated Layer, Radar Just Below Layer.

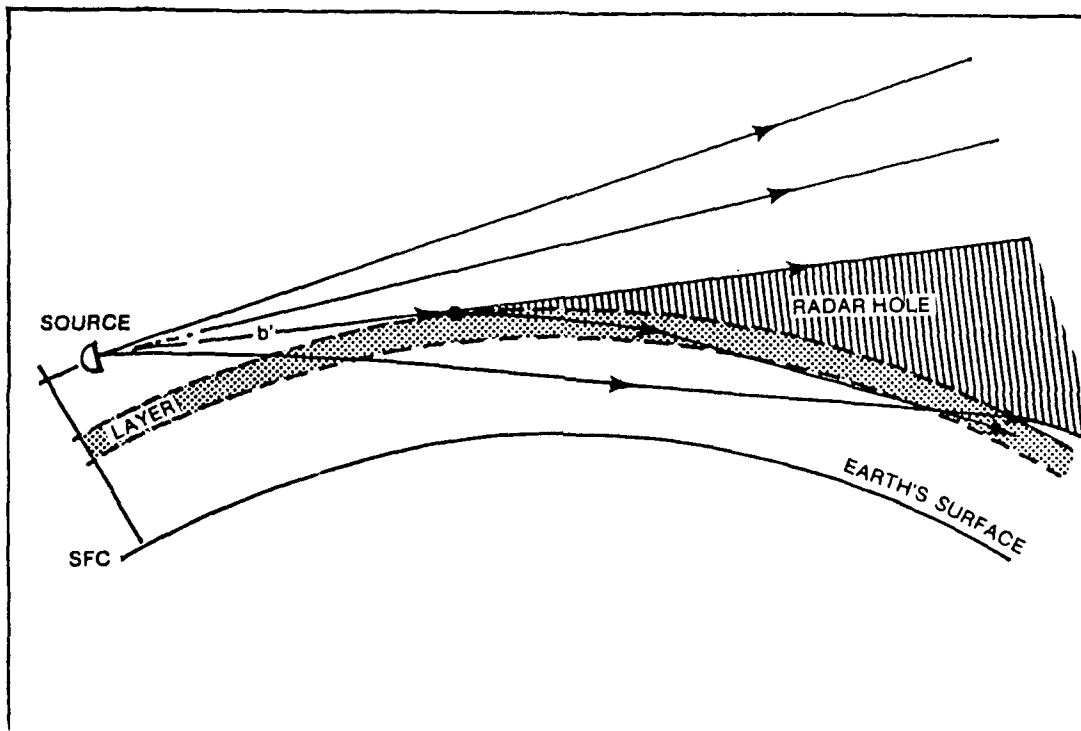


Figure 5b. Ray Refraction by an Elevated Layer, Radar Above Layer.

Chapter 2

THE METEOROLOGY OF ANOMALOUS PROPAGATION (AP)

Anomalous propagation (AP) is the term used to describe any type of nonstandard refraction phenomenon. AP is dependent on stratification of the atmosphere which is, in turn, dependent on certain weather conditions. If these weather conditions can be predicted, it follows that stratification and the resulting AP can be predicted, as well. This chapter will discuss the meteorological conditions conducive to the formation of each of the three "anomalous" (i.e., nonstandard) refraction categories: *subrefraction*, *superrefraction*, and *ducting*. Note that ducting is actually a form of superrefraction--the difference between the two is simply a matter of degree.

Subrefractive layers occur whenever the temperature gradient is *less than* (i.e., is more adiabatic) or the moisture gradient is *stronger than* in the standard atmosphere. The more notable patterns conducive to the formation of subrefractive layers are well-mixed layers, both surface-based and elevated, moist boundary layers

capped by inversions, stratus decks, and fog. Desert regions, with their low soil moisture, have a high percentage of occurrence of well-mixed layers. Mixed layers that have become elevated also produce subrefraction from the resulting inversion nose upward. Mixed layers can become elevated by nocturnal cooling, by frontal lifting, or by advection of mixed layers downwind over cool, moist air (Chids²; Lanicci, P. 85). When lids are present, the moisture in the boundary layer is trapped below the inversion base and consequently increases with height. As a result, the boundary layer is also subrefractive. The Trade Wind Inversion produces a subrefractive layer below the inversion nose for the same reason. This inversion results from a combination of subsidence south of the semipermanent oceanic highs, associated advection of well-mixed layers originating from large arid regions over the cool, moist boundary layers, and vertical mixing of warm, moist air from the ocean surface (Figure 6).

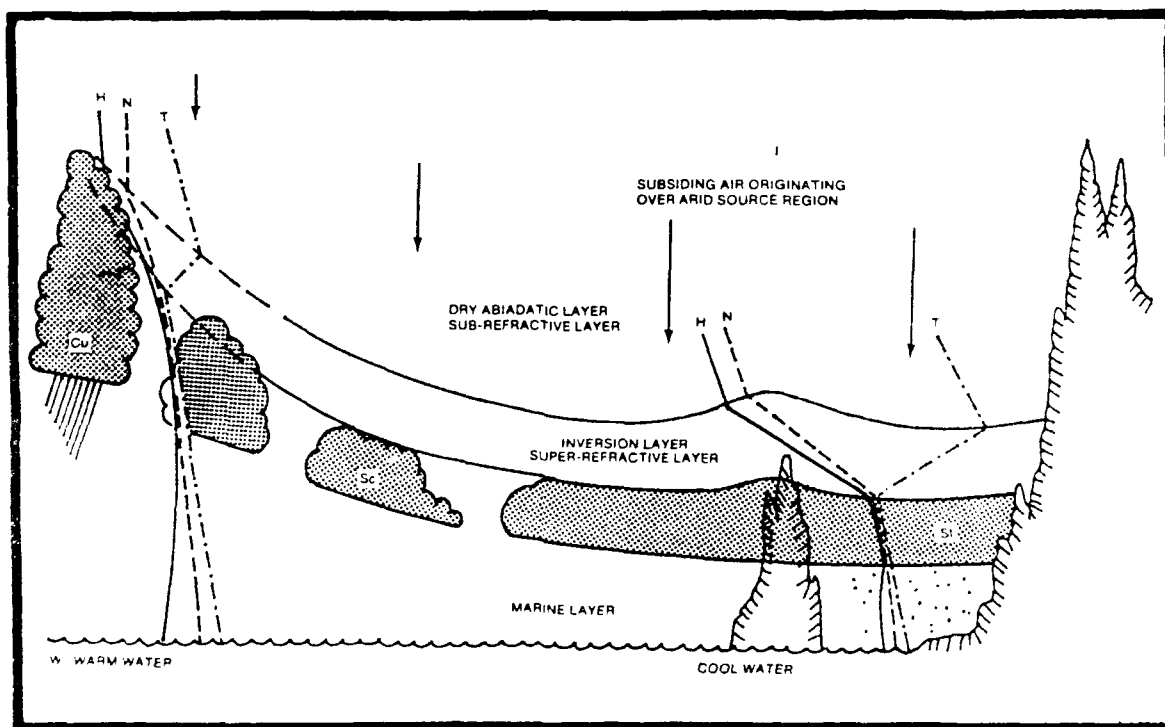


Figure 6. The Trade Wind Inversion Illustrated.

Subrefractive boundary layers are sometimes associated with subsidence inversions when the ground is wet from rain and summer insolation is strong--moisture

increases with height. Stratus also produces subrefractive layers--a more detailed discussion of that phenomenon will be provided later.

Contrary to what might be expected, fog layers are usually completely subrefractive. This is because when fog forms, the total amount of water in the layer remains substantially unchanged, while some of the water vapor condenses. The contribution of a given quantity of water to refractivity is less when the water is in liquid form than as a vapor. If the temperature increases through the fog layer (as is usually the case), saturation vapor pressure increases with height, and a subrefractive layer results. This occurs with ground fog, and sometimes with advection fog. Dew deposition enhances this effect.

Fog, however, does not always produce subrefractive layers. In certain other, less frequent, types of fog, the temperature (and hence the saturation vapor pressure) may remain constant or even decrease with height through the fog layer (as in windy tropical air fog or windy advection stratus). In cases like these, standard conditions for a superrefractive layer if the temperature decrease is strong enough are found. An example would be steam fog, which is formed when cold air passes over a warm sea. Advection fog would be likely to have a superrefractive layer above the surface standard layer.

Superrefractive layers occur whenever the temperature gradient is *stronger than* (i.e., is less adiabatic) and the moisture gradient is *weaker than* in the standard atmosphere; ducting occurs whenever the lapse rate is much greater than standard. Inversions of temperature and/or moisture, therefore, produce superrefraction or, if strong enough, ducting. The weather patterns that produce inversions, then, also produce superrefractive or ducting layers. A dimensional analysis of Equation 4 (on page 1) shows that vertical *moisture* gradients contribute much more to refractivity gradients than do vertical *temperature* gradients. Moisture inversions, therefore, are more important considerations than temperature inversions (Moreland, 1965). The most notable inversion producers are anticyclonic subsidence, trade wind circulations, differential advection (fids), cold fronts, thunderstorm gust fronts, nocturnal surface cooling, and high-moisture layers produced by surface evaporation or clouds. Two notable inversions that usually do *not* produce superrefractive or ducting layers are the frontal and land-breeze types (Turton et. al., 1988). The main reason for this is that the effects of vertical temperature and moisture gradients counteract each other.

Figures 7a and 7b (after Moreland, 1965) show a *proposed* working model for determining refractivity associated with cyclones (flows), their associated frontal zones, and subtropical and polar highs

(NAVOCEANCOMCEN 1987 and deduced from Moreland 1965). Note (in Figure 7b) that within the cyclone and associated frontal zones (Region F), stratification is near standard. Instability and vertical mixing common in these regions lead to the assumption that refractivity conditions are also near standard.

There are very low elevated ducts near the center of the subtropical high (Region B) where subsidence is strong. The southeast quadrant (Region C) is also an area of low, strong elevated ducts. The southern quadrant (Region D) often has weaker elevated ducts than in Region C because as air flows northward, boundary layer temperature and moisture increase. This increases the strength of convection and in turn raises and weakens the elevated ducts. There is no significant AP in Region E unless mid-level flow originates over an arid region; an elevated mixed layer will be present and will produce an elevated duct or a superrefractive layer from the surface up to the nose of the resulting inversion, and a subrefractive layer above that. There is usually no significant AP north of the center at any time.

Within the polar high, AP characteristics are similar to those in the subtropical high, but there are two small differences. First, the center region (Region A) produces lower and stronger ducts than Region B because subsidence is stronger and the sinking air drier (i.e., the more the adiabatic warming, the stronger the inversion). Second, there is an area of low elevated ducts around the center, bounded to the south by weaker elevated ducts (Region C), and to the north by superrefractive layers (Region E).

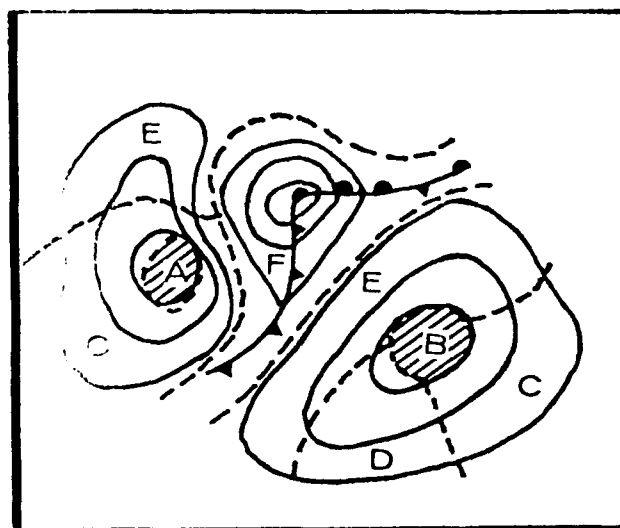


Figure 7a. Refractivity Regions (labeled A-F) in the Vicinity of Mid-Latitude System.

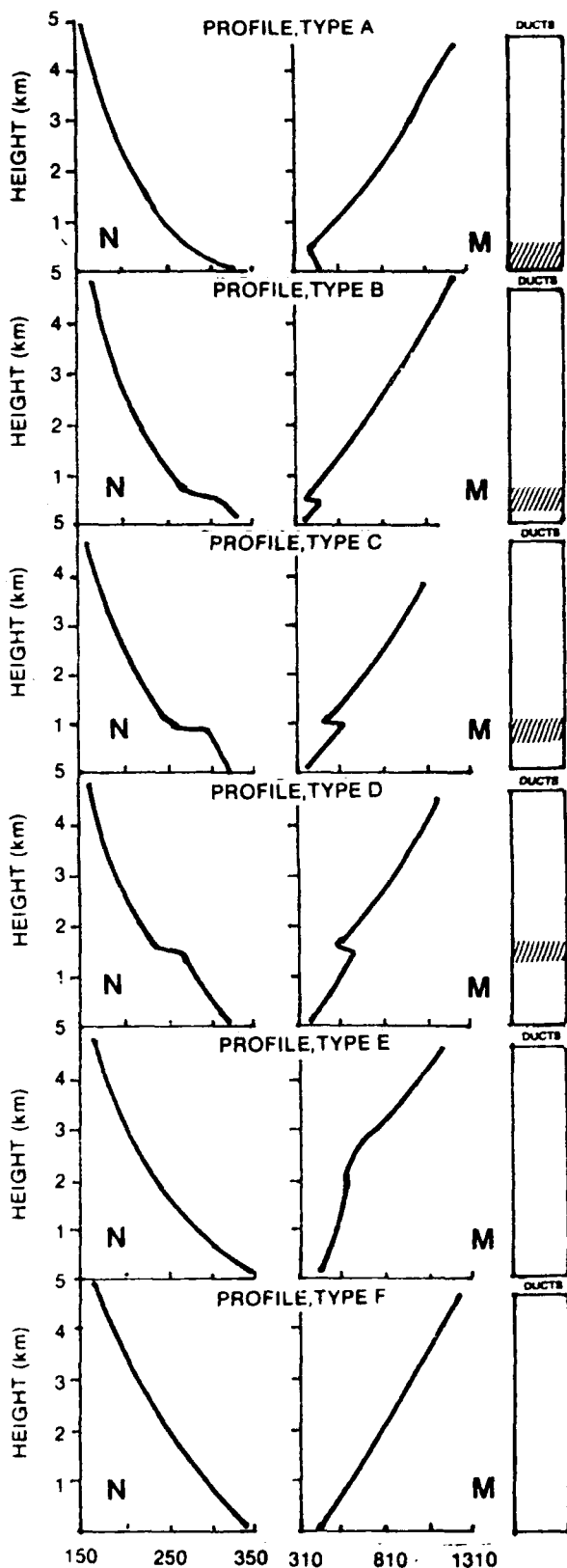


Figure 7b. Profiles Associated With Each Regional Type (A-F) in Figure 7a (Moreland, 1965).

The trade wind inversion also produces ducting and superrefractive layers at its base (see Figure 6). When stratus forms beneath the inversion, ducting strength increases because the *ordinarily* sharp decrease in moisture at the inversion is enhanced (there is more on the effects of stratus later in this discussion). The trade wind inversion is believed to be present at least 75% of the time in subtropical ocean areas downwind from major arid regions; its presence is reflected in the high ducting probabilities shown in Figure 8.

As mentioned earlier, elevated mixed layers (or 'lids') also produce ducting and superrefractive layers. These warm and dry mixed layers trap cool, moist air at the surface, resulting in a sharp increase in temperature and a sharp decrease in moisture at the boundary, creating a very sharp vertical gradient of refractivity. This stratification results as a consequence of differential advection. At low levels, the flow originates over water surfaces; at mid levels, over arid, very warm surfaces, such as deserts. This stratification, found over many parts of the world, is associated with desert/water-body combinations such as: Mexican Plateau/Gulf of Mexico; Sahara/Northeastern Atlantic; Andes/Eastern Pacific; South Africa/Southeastern Atlantic; Southwest Asia/Red Sea, Persian Gulf, and Arabian Sea; China/Western Pacific; and Australia/Western Pacific. This partially explains why these regions have a high frequency of elevated mid-level ducts (refer again to Figure 8). As mentioned earlier, the mixed layer above the inversion is subrefractive.

Sea-breeze circulations produce ducting and superrefractive layers. As shown in Figure 9, the circulation established by differential land-sea heating produces a warm and dry layer above a cool and moist layer; this inversion, however, only extends from 25 to 75 km from the coastline. As mentioned earlier, land-breeze circulations do not usually produce ducting or superrefractive layers because the resulting vertical temperature gradient (warm over cool) is counteracted by the resulting vertical moisture gradient (moist over dry). Because of the moderating effects of the tropical oceans, however, the vertical temperature gradients along tropical coastlines are often weak. Consequently, subrefractive layers can form. This is a prevalent occurrence in the Caribbean Basin. The same stratification of the sea/land breeze is produced on a much grander scale in monsoon regions—that is, land breeze/winter monsoon, sea breeze/summer monsoon.

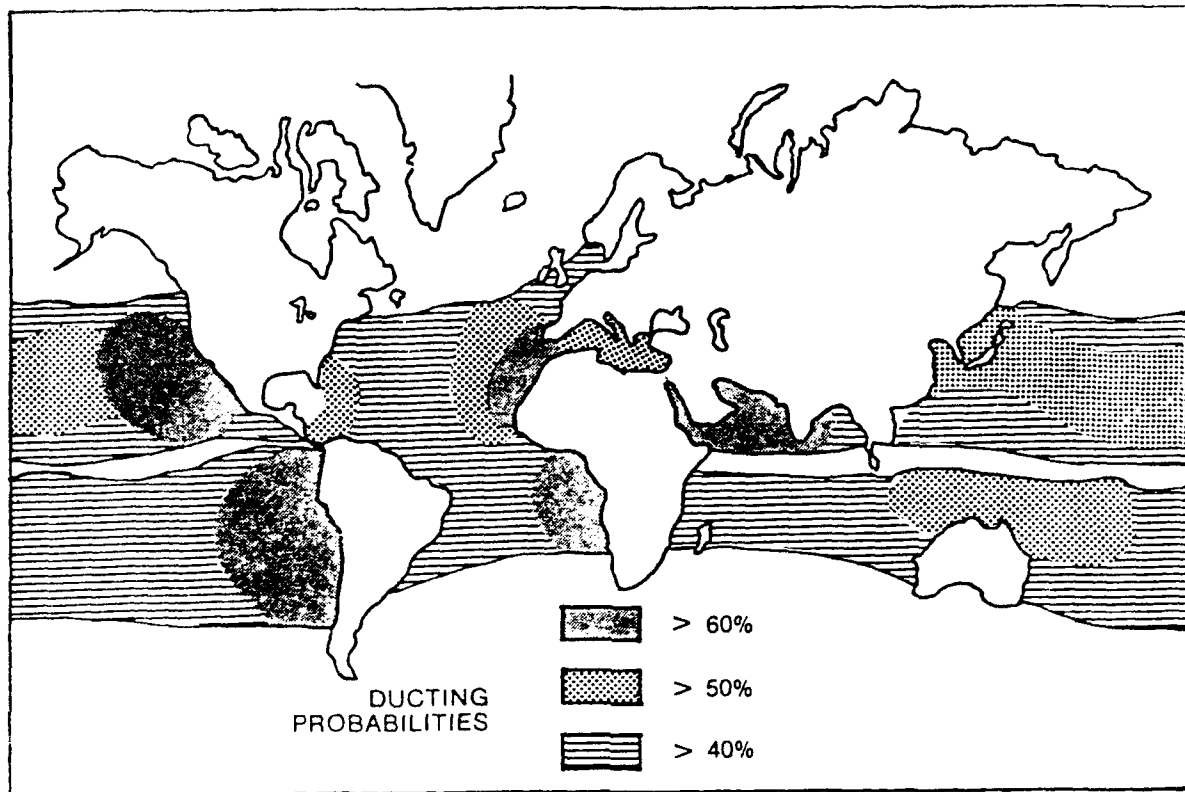


Figure 8. Global Frequency of Duct Occurrence (Miller et al, 1979).

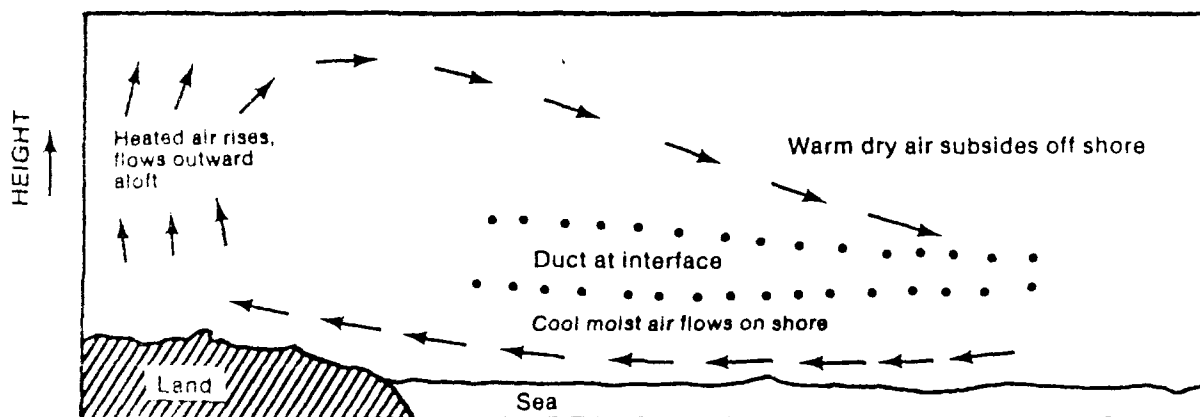


Figure 9. A Duct Created by a Sea-Breeze Circulation.

Cool and dry outflow ahead of thunderstorms produces weak, shallow superrefractive layers from gust fronts with warm, moist air over cool, dry air. Although the vertical temperature and moisture gradients oppose each other, the temperature gradient is usually strong enough to produce a weak superrefractive layer. The cool and rain-moistened outflow behind thunderstorms produces strong, shallow superrefractive layers that often become strong enough to duct because the temperature and moisture gradients act in tandem.

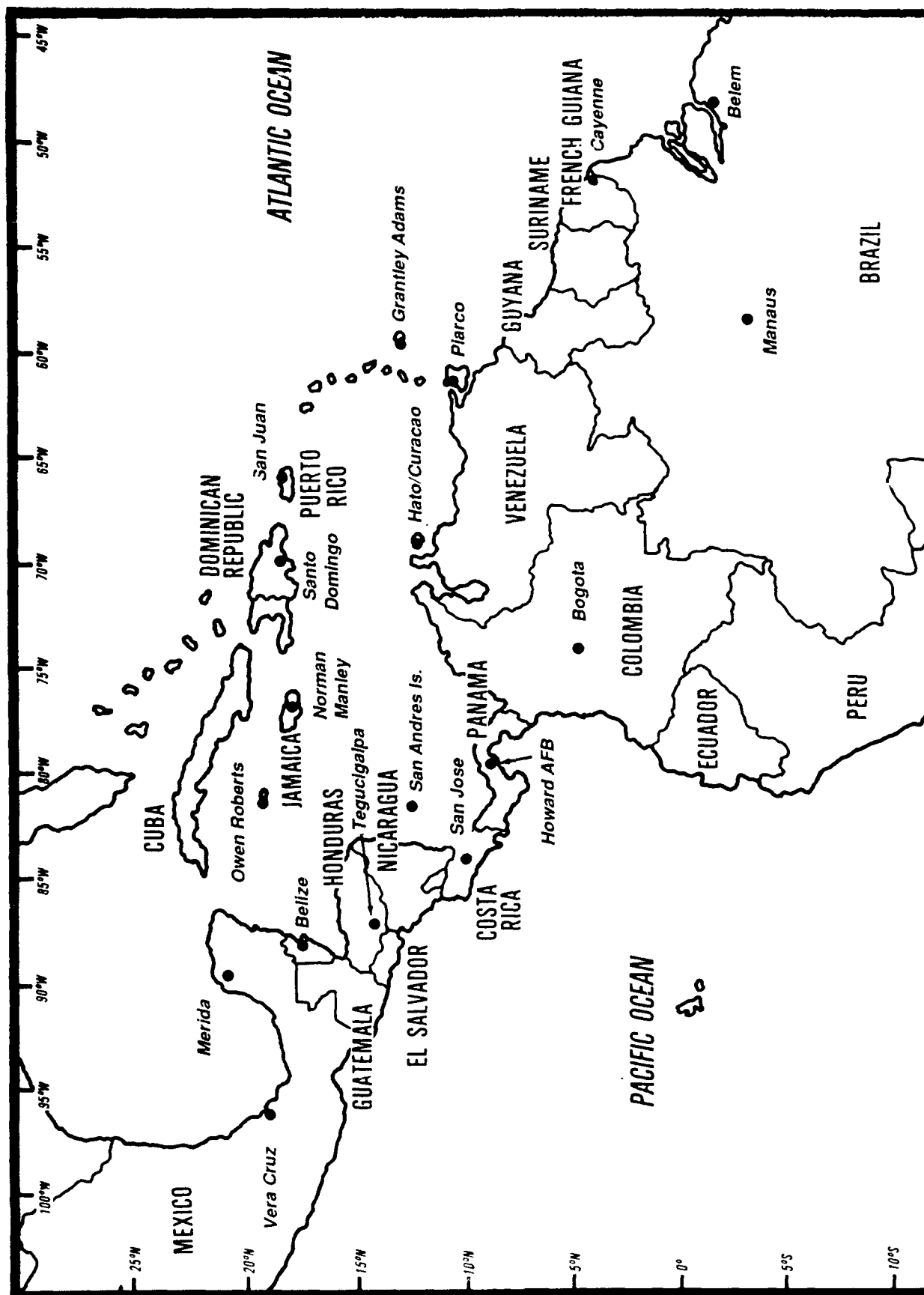
Nocturnal inversions produce shallow but sometimes very strong ducts. Nighttime cooling of the land surface under clear skies leads to the formation of a temperature inversion, while dew deposition leads to an opposing increase of humidity with height. Whether a duct forms will depend on whether the wind is strong enough to reduce dew deposition. When winds are light, ducts or superrefractive layers form just after sunset and disappear by early morning. Desert regions cycle from low-level ducts or superrefractive layers during the night to normal conditions by late morning, to deep subrefractive layers by early afternoon through late afternoon, finally returning to normal just after sunset when ducts and superrefractive layers start to form again.

Evaporation ducts form as a result of strong vertical moisture gradients created by large moisture fluxes from warm sea surfaces. Evaporation ducts may also form over land areas as a result of evaporation from wet surfaces after rain, over lakes when steam fog is observed, and even over tropical rain forests. These land-based ducts are generally shallow and short-lived. An interesting consequence of the physical processes that

form evaporation ducts is that strong duct formation is favored by low wind speeds in stable cases and by high wind speeds in unstable cases (Anderson & Gossard, 1953). Evaporation ducts are very common in tropical regions, especially in the Persian Gulf, where summertime sea surface temperatures are as high as 95°F (35°C); as a result, the Gulf has one of the largest moisture fluxes in the world, as well as the strongest and highest percent occurrence frequency of low-level ducts in the world.

Beneath their bases, stratus decks produce subrefractive layers because moisture increases with height there, while temperature remains relatively constant. But from mid-cloud upward, where temperature increases and moisture decreases sharply with height, ducts or superrefractive layers are produced--see Figure 6. An observation of the cloud top, therefore, such as from a pilot report or satellite photo, can be used to infer the altitude of a superrefractive layer.

Forecasting the existence of AP layers depends on being able to predict the vertical profiles of temperature and humidity in the region of interest. This can be approached by a combination of conceptual models as presented in this chapter, manually forecasting the sounding (Gresser and Wallace, 1985), and other modeling techniques such as IREPS (Patterson, 1988). Although this discussion has covered most of the weather patterns that produce anomalous propagation, AWS TR 183, Volume 1, *Estimating Meteorological Effects on Radar Propagation*, (Moreland, 1965), provides much more detail and is highly recommended.



Chapter 3

HOW THE CLIMATOLOGY IS PRESENTED

Data Manipulation. The data used in this study was taken from USAFETAC's upper-air DATSAV database, period of record 1977-88. It was checked for gross errors and interpolated every 30 meters below 5,000 meters (16,500 feet--about 500 mb) and 50 meters up to 10,800 meters (35,000 feet). Interpolation is needed to produce a more uniform distribution of observations through the vertical; without it, the distribution is severely skewed toward the mandatory pressure levels. Larger increments resulted in many lost significant levels, and smaller ones didn't improve resolution enough to warrant the extra processing time. The cut-off was at 10,800 meters (35,000 feet) because (apart from the tropopause) profiles are flat above that level. Refractivity (N) and its vertical gradient (dN/dh) were calculated and checked for gross errors: N by ± 1 per cent and 500 N units and dN/dh between -450 and 450 N -units/km. dN/dh was then categorized as specified in Table 1. Layers of the various categories

were calculated and data was grouped by station, season, hour, and height in preparation for statistical analysis.

Weather Stations Used. Although 31 stations were analyzed for this study, data quality for many of them was poor, and not many had significant observation counts at 00Z. As a result, climatology for only 17 of the 31 stations is included in the study results: 13 of the stations had data for both 00 and 12Z, and four (used to fill in otherwise data-void areas) had data for 12Z only. The locations of the 17 weather stations listed in Table 3 and used in this study are shown in Figure 10, opposite. These stations were selected to provide the best areal coverage possible while keeping the technical note to a reasonable size; refractivity climatology for other stations may be available from USAFETAC/ECA upon request.

TABLE 3. Stations Used in Refractivity Study.

<u>BLKSTN</u>	<u>NAME</u>	<u>LAT</u>	<u>LOX</u>	<u>ELEV (m)</u>	<u>LOCATION</u>	<u>KEY</u>	<u>AREA²</u>
766440	Merida, MX	20-57N	89-40E	11	Coastal	1	1
766920	Vera Cruz, MX	19-09N	96-07E	13	Coastal	2	1
783840	Owen Roberts, GC	19-18N	81-22E	3	Island	3	2
783970	N. Manley, JM	17-56N	76-47E	1	Island	4	2
784860	S. Domingo, DR	18-28N	69-53E	14	Coastal	5	2
785260	San Juan, PU	18-26N	66-00E	3	Island	6	2
785830	Belize, BH	17-32N	88-18E	5	Coastal	7	1
787200	Tegucigalpa, HO	14-02N	87-15E	999	Mountain	8	1
787620 ¹	San Jose, CS	09-59N	84-13E	920	Mountain	9	1
788060	Howard AFB, PM	08-58N	79-33W	66	Coastal	10	1
789540	G. Adams, BR	13-04N	59-30W	47	Island	11	2
789700	Piarco, TD	10-35N	61-21W	12	Island	12	2
789880	Hato/Curacao, NU	12-12N	68-58W	62	Coastal	13	2
800010 ¹	San Andres Is, CO	12-35N	81-42W	2	Island	14	2
802220	Bogota, CO	04-42N	74-09W	2,541	Mountain	15	4
821930 ¹	Belém, BZ	01-23S	48-29W	16	Coastal	16	9
823320 ¹	Manaus, BZ	03-09S	59-59W	84	Rain Forest	17	9

¹ 1200Z data only
² "Area" column entries refer to the subregions shown in Figure 11 and Table 4

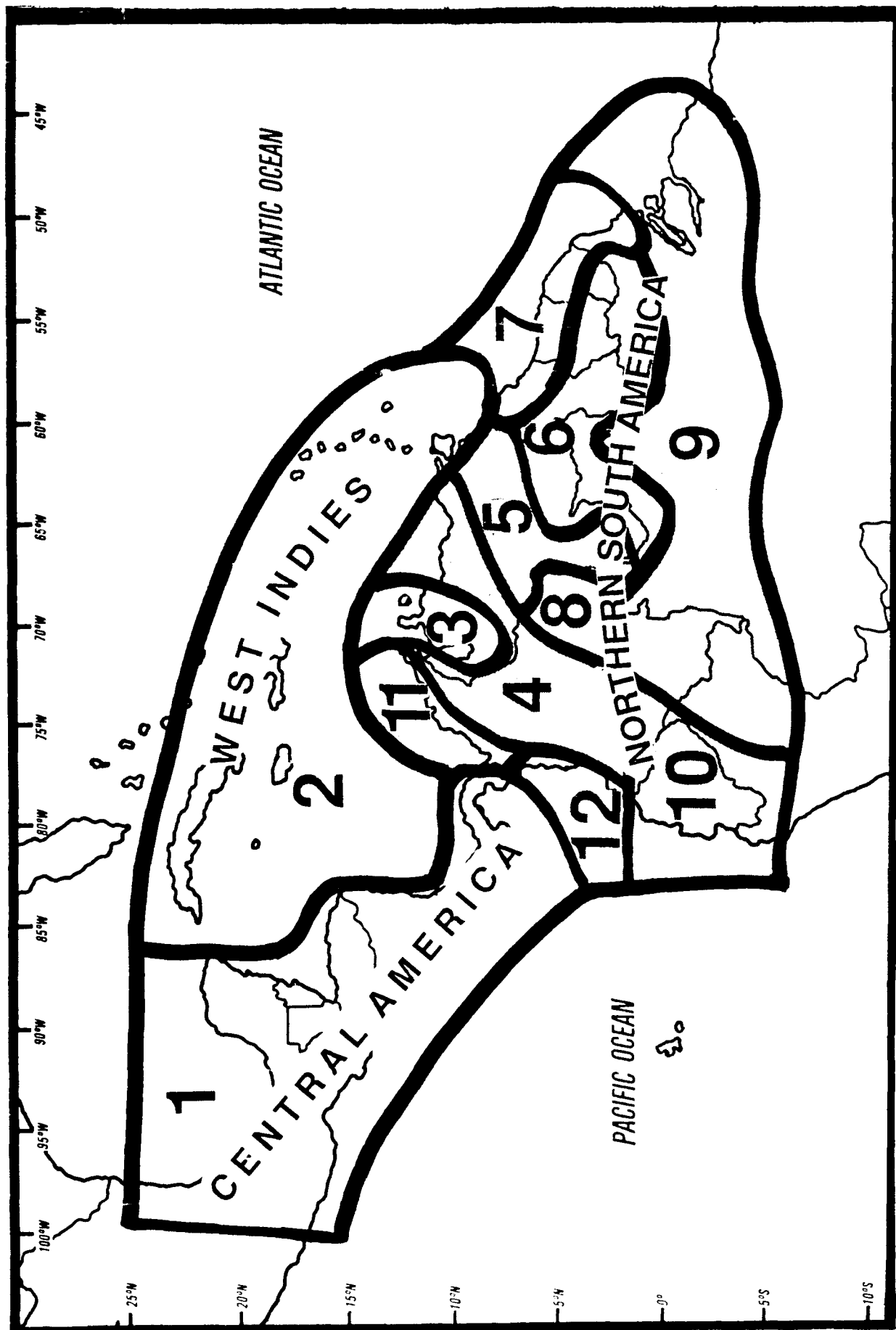


Figure 11. Seasonal Subregions of the Caribbean Basin. The numbers are keyed to the "Area" columns in Tables 3 and 4.

Seasons. The climate of the Caribbean Basin is not divided into the typical four seasons of the mid-latitudes, but into tropical "wet" and "dry" seasons, with short periods of transition between. Because of the complicated movement of the Monsoon Trough (or Intertropical Convergence Zone, ITCZ) in this region, these periods vary widely from one subregion to another, and the seasonal breakouts (shown in Table 4) are extraordinarily complex. The unique seasonal groupings given in Table 4 apply to each of the 12 different subregions shown in Figure 11, opposite. Because there was no upper-air data for regions 4, 5, 6, 8, the western half of 9, and 10, (shaded), they were necessarily omitted from the study. It may be possible to infer some characteristics of these areas from stations in neighboring subregions, but use extreme care in such estimations.

The main obstacle to grouping the data by tropical "season" is that the transitions do not occur at the same time every year. As a consequence, the transition periods used in this study are longer than those that actually occur, and the transition statistics are therefore slightly diluted. Note that some subregions are shown as not having transitions at all; the decision to group them this way was made because the change in these areas was so abrupt, usually taking less than 2 weeks. In Appendix B, the seasonal periods shown below in Table 4 are keyed to numbers 1 to 5; that is, Wet Season = 1, Wet-Dry Transition = 2, Dry Season = 3, Dry-Wet Transition = 4, and Monthly = 5.

TABLE 4. Seasons of the Caribbean Basin's 12 Subregions.

AREA	WET SEASON	WET-DRY TRANSITION	DRY SEASON	DRY-WET TRANSITION
1	Jun-Sep	Oct-Nov	Dec-Mar	Apr-May
2	Jun-Oct	Nov-Dec	Jan-Mar	Apr-May
3	May-Oct	Nov	Dec-Feb	Mar-Apr
4*	Mar-May & Oct-Dec	-----	Jun-Sep & Jan-Feb	-----
5*	May-Sep	Oct	Nov-Mar	Apr
6*	Apr-Sep	Oct	Nov-Feb	Mar
7	Dec-Jul	Aug	Sep-Oct	Nov
8*	May-Oct	Nov	Dec-Mar	Apr
9	Jan-May	Jun	Jul-Oct	Nov-Dec
10*	Jan-Apr & Sep-Nov	-----	May-Aug & Dec	-----
11	May-Jun & Aug-Nov	-----	Dec-Apr & Jul	-----
12	Year-round	-----	-----	-----

*Not included in study--no upper-air data available

Sounding Times Vs. Weather Extremes. The refractivity climatology given in this study is based on upper-air data that was necessarily restricted to the two fixed radiosonde sounding times: 0000Z and 1200Z. As mentioned in Chapter 1, there is no assurance that the times of local radiosonde runs will coincide with periods of minimum, average, or maximum refractive disturbances. As you may recall from Chapter 2, the refractivity profile near the ground is strongly dependent on diurnal changes in the state variables; extremes in anomalous propagation (AP) normally occur at the time of minimum and maximum surface temperatures (sunrise and late afternoon, respectively). To be most effective, then, any study of this kind would require soundings as

close to these times as possible. Upper-air soundings in the Caribbean Basin are taken at about 0700 and 1900 LST. Average sunrise in the region is 0630 LST in January and 0430 LST in July, usually about the time of the minimum daily temperature and consequently the time of day that nocturnal inversions are strongest (i.e., duct strength is at its peak). The 1200Z sounding is taken only a half-hour after morning extremes during the dry season, and 2 1/2 hours after morning extremes during the wet season. As a result, the 1200Z climatology does a good job of picking up extremes of AP during the dry season, but doesn't perform as well during the wet season. Average sunset in the Caribbean Basin is around 1730 LST in January and 1800 LST in July;

what little temperature maximum there is normally occurs at about 1300 LST, and the 0000Z sounding is taken well after afternoon extremes. Since diurnal oscillation is very small in most seasons and in most subregions, not as much AP activity is missed as one might expect.

Climatological Data Formats. This report provides refractivity climatology in three formats. The first is a narrative description of refractivity in a given region—see Chapter 4. Second, regional maps (Appendix A) show percent occurrence frequency of the three categories of AP. Finally, graphs and tables in Appendix B provide refractivity statistics, stratified by height, for each of the 17 stations used in the study. Explanations of the maps and tabular data follow.

Percent Occurrence Frequencies (POFs). In Appendix A, regional maps provide POFs for all three AP categories (ducting, superrefraction, and subrefraction), each of which is defined in Table 1. POFs show how often the vertical gradient of refractivity (N) exceeds certain values, but since this is only one of four conditions necessary to produce a given effect (i.e., "ducting," explained in Chapter 1), POFs give only a "meteorological potential" for each of the three AP categories. To produce these maps, each sounding was scanned to determine whether or not a particular AP category had occurred anywhere in the layer from surface to 20,000 feet (6,090 meters). If a particular category was flagged as having had occurred, that sounding was counted as an occurrence for that category. Since any of the three AP categories could have occurred in the same sounding, POFs do not necessarily add up to 100%; sums could be as high as 300%. Data was grouped by the seasons shown in Table 4 before the POFs were calculated. A monthly breakout for each station is provided as a line graph in Appendix B.

Site-Specific Data. For detailed, "site-specific" needs, refractivity climatology is provided for each of the 17 stations listed in Table 3. This data is stratified by station, season, hour, and height. The latter (height) stratification was included in an attempt to provide vertical resolution that can be used in either a "look-up" or "look-down" configuration.

Height Increments. Interpolated heights are grouped every 500 feet from the surface to 5,000 feet (1,500 meters) MSL, and every 1,000 feet from 5,000 to 35,000 feet (10,800 meters). It is important to note that distance units are mixed, a convention that was adopted in order to conform to standard practices. Most references to

dN/dh are in N-units per kilometer while most heights in meteorology and aviation are in feet.

Data Grouping and Presentation. Once grouped, the data was reduced statistically. N , dN/dh , and layer thicknesses were tested to see if they were normally distributed. All three failed, meaning that means and standard deviations are not useful statistics; as a consequence, only percentiles are used in this report. The 1st, 10th, 50th (median), 90th, and 99th percentiles were chosen.

If a value is said to be at the "1st percentile," that value would be exceeded (or be more positive) 99% of the time. A value at the 99th percentile is exceeded only 1% of the time, and a value at the 50th percentile is exceeded half the time.

Profiles of N and dN/dh percentiles are presented in graphic and tabular form, but percent occurrence frequency and layer thickness statistics of each refractivity category are given in tabular form only. This restriction resulted when a useful graphic representation scheme couldn't be found. The data in Appendix B is grouped by station, season, hour, and height. Data for each station is kept together to make it easier for an operational forecaster to find it. To simplify referencing, each figure number is in three parts: the first part refers to the station, the second to the season, and the third to the different types of graphs and tables used. For example, Appendix Figure B-1-1-A refers to Merida, MX (station 1), Wet Season (season 1), and N percentile profiles (type A). See Table 3 for the station key, the discussion of Table 4 for the season key, and Table 5 for the type key.

TABLE 5. Data Type Key.

DATA TYPE	KEY
N percentile profiles	A
dN/dh percentile profiles	B
Refractivity category tables	C
Refractivity category layer thickness statistics	D

N Percentiles. Vertical percentile profiles of Refractivity (N) itself are provided in Appendix B as part "A" of each figure (lines from left to right: 1%, 10%, 50%, 90%, and 99%). From these profiles, percentiles of N can be interpolated at any height from the surface to 30,000 feet. If more precision is needed, the table in part "C" of each figure gives N percentiles (N -units) for the

specific height groups. For example, median refractivity in the lowest layer (surface-500 feet) at 00Z during the wet season at Merida, MX (Figure B-1-1-1C) is 373.25 N-units, and the 99th percentile is 398.72 N-units. These profiles were not used in the analysis of the region's refractivity climatology, but are provided because they have some useful engineering applications. These graphs, however, show that, on the average, refractivity does have an exponential lapse rate, lending strong support to the critical exponential lapse rate assumption used in many applications. Remember, however, that it is the vertical gradient of N that affects beam propagation, and that these averages wash out the day-to-day extremes that cause AP. A climatology of dN/dh , therefore, is more useful.

dN/dh Percentiles. Vertical percentile profiles of the vertical gradient of refractivity (dN/dh) are provided in Appendix B as part "B" of each figure (lines from left to right: 1%, 10%, 50%, 90%, and 99%). As with N , percentiles of dN/dh can be interpolated at any height from the surface to 30,000 feet. If more precision is needed, the table in part "C" of each figure gives dN/dh percentiles (N-units/km) for the specific height groups. In the Merida example, the median vertical gradient in the layer between 5,000 and 6,000 feet is -72.91 N-units/km, and the 99th percentile value is -180.92 N-units/km. The gradient is more negative (stronger duct) was only 1% of the time. These profiles were used extensively in the analysis of the region's refractivity climatology; they also have many engineering applications in the design and operation of most electromagnetic propagation systems.

Refractivity Category Tables. Percentiles of N and dN/dh along with percent frequency of occurrence (POF) of each category, are provided in tables as part "C" of each figure. The percentile columns have already been described. The POF of each AP category is given for each of the specific height groups. The numbers show the percentage of time that the vertical refractivity gradient (dN/dh) within each height group falls within each of the AP categories. As with the AP frequency maps, the different categories are not mutually exclusive, and the percent frequencies for each height layer do not

necessarily add up to 100%. For example, Figure B-1-1-C shows that within the 1,000 to 1,500 foot layer at 00Z, ducting occurred 2.0% of the time; super-refraction, 6.2% of the time; and subrefraction, 2.6% of the time. Note that the POF of standard refraction was omitted because it was (not surprisingly) found to occur more than 99% of the time in every height group. Using these columns, a forecaster can determine the frequency of any of the three refractivity categories for any height listed in the table.

Layer Thickness Tables. As mentioned in Chapter 1, the *thickness* of a layer is one of the four variables needed to decide whether or not a particular stratification will influence a given system. Percentiles of layer thicknesses of each refractivity category are provided in tabular form as part "D" of each figure. These numbers show the percentiles of layer thicknesses in each category with bases within a given height group. For example, Figure B-1-1-D (0000Z) shows that when a duct is based anywhere between 5,000 and 6,000 feet, its thickness is greater than 295 feet half the time (the 50th percentile) and less than or equal to 689 feet 90% of the time (the 90th percentile). Adding the thickness percentile values to the bottom and top of a given height group will give analysts a rough idea (or range) of the tops of AP layers.

Because these percentile columns are contingent on whether or not the layer has its base within a given height group, percent frequency columns showing the percentage of time a particular category is based within a given height group are provided. Again, as with the AP frequency columns in Table C, the percent frequencies are not mutually exclusive, and do not necessarily add up to 100%. The percent frequencies in this table are lower than those in Table D because they count only the occurrences based within height groups, whereas those in Table D also count the number of layers that pass upward through a given height group. Percent frequencies in the surface group are the same in both tables since no layers pass upward through this group. Since analysis showed that very few, if any, layers were based above 20,000 feet, the tables were terminated at that height.

Chapter 4

DESCRIPTIVE REFRACTIVITY SUMMARIES

This chapter provides narrative summaries of refractivity climatology for the three major subregions of the Caribbean Basin. As has already been discussed in Chapter 2, patterns of anomalous propagation (AP) are highly dependent on weather conditions. This chapter relates Caribbean Basin weather to its AP patterns. The following discussions integrate the AP frequency distributions in Appendix A, the tabular statistics in Appendix B, and the general climatology in USAFETAC/TN-89/003, *The Caribbean Basin--A Climatological Study*. The author does not attempt to provide another general climatology for the study region; he tries only to relate the most prominent weather patterns described in USAFETAC/TN-89/003 with regional refractivity climatology. Specific refractivity climatologies are provided in the appendices and explained in Chapter 3. Because of the scarcity of data, the discussions are necessarily limited to the synoptic scale, hinting only slightly at the mesoscale. Forecasters

should therefore use the basics in Chapters 1 and 2 to apply this information to a specific location. The seasons described here are defined in Table 4 and Figure 11.

Note that Northern South America (that portion north of the Amazon River) has been further subdivided into 12 smaller regions because of the incredibly complex topography and wide range of climate. These subregions (the same as those used in USAFETAC/TN-89/006, *The Caribbean Basin--An Electrooptical Climatology for the 8-12 Micron Band, Volume III--Northern South America*) are shown in Figure 12. Seasonal breakouts are given in Figure 11 and Table 4. Because of topography and climate, along with the fact that there are only five upper-air stations in the region (which is about the size of the United States east of the Mississippi), it is nearly impossible to relate AP climatology here to general weather. The discussions for Northern South America, therefore, are necessarily limited in scope and coverage.

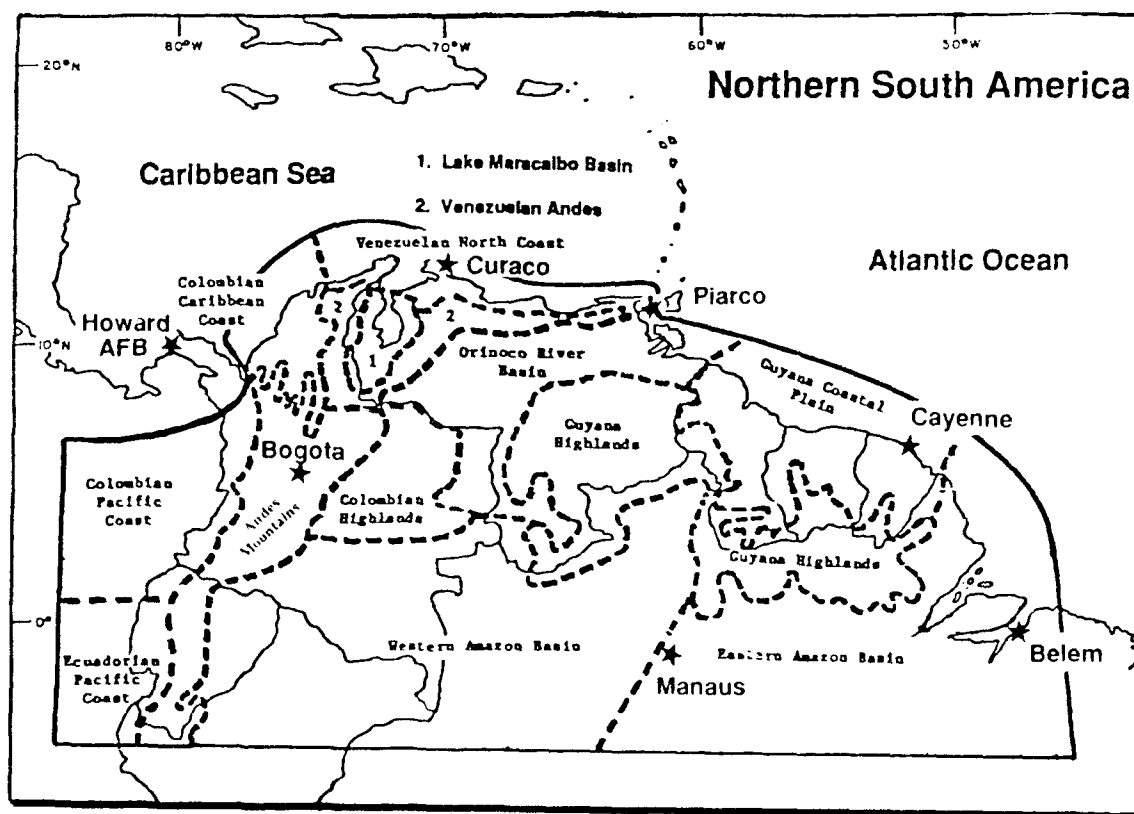


Figure 12. Northern South America Subregions (from USAFETAC/TN-89/006).

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CENTRAL AMERICA

WET SEASON

During northern hemisphere summer, the North Atlantic High is so far north and east as to have little effect on Central American weather. The trade wind inversion, already weak over the Yucatan Peninsula, weakens still further southward until 15° N, where it ceases to exist (Gutnick, 1958). The base of the inversion rises from 6,000 feet over the Yucatan Peninsula to 7,500 feet over Belize; this helps explain the higher incidence of ducting and superrefractive layers at those heights and locations (for an example, see Figures B-1-1-C, page B-5, and B-7-1-C, page B-107). Because the inversion is the main cause of ducting and superrefractive layers, the overall percent occurrence frequencies (POFs) of both ducting and superrefraction are lower during the wet season than at any other time of year. North of 15° N, ducts occur about 45% of the time and superrefractive layers occur more than 75% of the time. South of 15° N, ducts occur only about 10% of the time, superrefractive layers less than 25%, as can be seen on page A-2.

As another consequence of the distance from the North Atlantic High, trade winds are light (8 knots) and northeasterly; sea and land breeze circulations are free to dominate. Wherever coast lines are parallel to the trade wind flow (such as the east and west coasts of the Yucatan Peninsula and the east coast of Nicaragua), as well as on the lee side of the Rocky Mountains, the sea/land breeze circulation deflects the flow toward land during the day and out to sea during the night. Wherever the coast is perpendicular to the trade winds (as with Honduras and the Mexican gulf coast) the sea breeze is enhanced; the land breeze only slows the trade winds.

During the day, the sea breeze forces very moist air (RH 75-80%) beneath drier air (RH 50-60%) to produce a sharp vertical moisture gradient in the boundary layer (surface to 500 feet). As a result of the decrease in moisture with height, ducts and superrefractive layers are common along coastlines from the surface to 500 feet. This is reflected in the 00Z climatology: Merida, MX, shows 33.3% ducting POF and 37.9% superrefractive layer POF in the first 500 feet (Figure B-1-1-C, page B-5). Vera Cruz, MX, shows 25.7% and 38.0%, respectively (Figure B-2-1-C, page B-22). As the area south of Nicaragua comes under the influence of the

Monsoon Trough, the sea/land breeze circulation there is lost in the synoptic flow; ducting and superrefractive layers don't form as often. Howard AFB, for example, shows only 11.5% ducting POF and 18.8% superrefractive layer POF (Figure B-10-1-C, page B-158).

During the night, the land breeze forces the relatively drier air out over the water, beneath the moister air. Because of the moderating affects of the Caribbean, the potential temperatures of the two airmasses are about the same. The stratification of "moist over dry," with a relatively constant temperature, produces a subrefractive layer. North of 15° N, subrefraction occurs more often during the wet season than at any other time of the year. This is reflected in the 12Z climatology for Merida, MX, where the subrefraction POF is 41.1% (Figure B-1-1-C). South of 15° N, where the land breeze is either weak or nonexistent, subrefraction POF is not as high at Howard AFB, where subrefractive layers were observed only 28.5% of the time (Figure B-10-1-C).

AP is insignificant throughout most of the Northern Mountains region of Central America. Guatemala and Honduras, however, show a curious maximum in ducting and superrefraction between 6,000 and 9,000 feet, with a 12Z maximum in subrefraction above that (20% at 12Z, compared to 2% at 00Z; see Figure B-8-1-C, page B-124). We suspect that this is the result of a strong mountain breeze circulation that sets up during the night from the tremendously high (over 10,000 feet) mountain range in that area. Cool, dry air slides down the slopes and slips under warm, moist air. A strong temperature inversion forms; the inversion outweighs the effects of the small increase of moisture with height. If dew deposition occurs, the moisture gradient increases, usually counteracting the temperature inversion to the point at which ducting and superrefraction will not occur.

Without the trade wind inversion to impede convection, and with the movement of the Tropical Upper-Tropospheric Trough (TUTT) into the area to aid in ventilating convection, diurnal orographic circulations mesh with the sea breeze to produce thunderstorms almost every day on both sides of the Rocky Mountains. Confused AP patterns, produced by gust fronts interacting near the thunderstorms, predominate.

CENTRAL AMERICA

WET SEASON, Cont'd.

Tropical disturbances (easterly waves, tropical cyclones, subtropical lows, and trade wind surges) reach their peaks near the end of the wet season, but they are usually so well mixed that AP is at a minimum. Attenuation, on the other hand, is a serious problem. Subtropical lows are usually surrounded by a large zone of weak subsidence that often creates superrefractive layers. These lows are believed to be partly responsible for the "Temporale," a stratiform, drizzly weather system. Beneath the low cloud, in the drizzle,

propagation is near normal; above the stratus deck, however, the rapid decrease in moisture forms a superrefractive layer. The moisture gradient is rarely strong enough to produce ducting.

Fog is rare along coasts. The valleys of the Northern Mountains region are the only places in Central America where fog is prevalent. Whenever and wherever fog *does* form, however, a subrefractive layer is present.

WET-TO-DRY TRANSITION

The southward movement of the North Atlantic High begins the transition from a wet climate to a drier one. Trade winds begin to increase in strength and veer to the east-southeast. The trade wind inversion strengthens and lowers. The North American Polar Trough also begins to slide southward, shifting upper-level winds dramatically from easterly to westerly. All these changes result in a sharp decrease in convective activity and a dramatic

increase in ducting and superrefraction. Boundary-layer AP decreases in occurrence frequency, but mid-level AP increases. During the transition there are chaotic swings between wet and dry season characteristics, with a prevailing tendency toward those of the wet season. To fully understand transitional AP patterns, forecasters must understand both wet and dry season characteristics.

DRY SEASON

As the North Atlantic High slides southward and establishes itself as the dominant weather feature in the Caribbean Basin, the trade winds and the trade wind inversion increase in strength and dominance. This effect is more pronounced to the south of Belize than to the north, and stronger along the east coast than the west. As a result, ducting (70%) and superrefraction (80%) are at their maximums for the year--compare Figures A-1-1 and A-1-2). The frequency of occurrence of ducting and superrefraction at the height of the trade wind inversion (5,000 to 9,000 feet) swings from 6% during the wet season to 19% in the dry (Figures B-7-1-C, page B-107, and B-7-3-C, page B-115). Because of the well-mixed layer associated with the trade wind inversion, occurrence of subrefraction in the layer above the inversion parallels the occurrence of ducting and superrefraction.

During the dry season, the trade winds become strong enough (and the insolation weak enough) to mask the sea/land breeze circulation; the sea/land breeze AP pattern is at its minimum. As already mentioned, this effect is stronger south of Belize than north, and stronger on the east coast than on the west. Because the Rockies block the trade wind flow, sea/land breeze circulations on

the west coast remain active: boundary layer AP along the Pacific coast remains relatively constant throughout the year.

As another consequence of the trade wind inversion's presence, convective activity and precipitation are at their minimum for the year; the troublesome AP patterns produced by interacting gust fronts are seldom a problem. The Monsoon Trough has moved so far south, that it has no effect on Central American weather. Tropical disturbances still enter the area through November, but they are rare.

The main weather disturbance during the dry season is the occasional polar surge from the north, but these frontal systems rarely push farther south than Honduras. As the cold air behind the front is dammed against the eastern slopes of the Mexican Rockies, stratus (with its associated AP pattern) blankets the area. Except for fog that forms after frontal passage, the remaining parts of these fronts rarely produce AP. As the cold air behind the front moves over the warm (and usually wet) ground, fog forms. As discussed in Chapter 2, this type of advective fog usually forms a superrefractive layer.

CENTRAL AMERICA

DRY SEASON, Cont'd

Although the trade wind inversion reaches into the Northern Mountains Region, the trade winds are so jumbled as the flow passes over rough terrain that the mountain/valley breeze circulation continues to

dominate. Because the mountain breeze enhances the trade wind inversion, AP POF is higher in the morning than in the evening. The diurnal change, however, is not as great as during the wet season.

DRY-TO-WET TRANSITION

The dry-to-wet transition is marked by the northward retreat of the North Atlantic High, which withdraws from the Panama area in February, from Honduras in March, and from Belize in April. This northward progression is highlighted by a pronounced increase (by 50-55%) in convective cloudiness and a pronounced decrease in mid-level AP. The transition is marked by chaotic

swings between dry and wet season characteristics, but with a prevailing tendency toward the dry. In general, boundary AP occurrence frequency increases, while mid-level AP decreases. To understand transitional AP patterns, forecasters must familiarize themselves with both dry and wet season characteristics.

WEST INDIES

WET SEASON

During northern hemisphere summer, the North Atlantic High is not as dominant as during the dry season, but it still affects West Indian weather. The trade wind inversion, with an average height of about 9,000 feet (Gutnick, 1958), is responsible for a higher incidence of ducting and superrefraction between 6,000 and 9,000 feet, as well as for subrefraction above that. The percent occurrence frequency (POF) of AP throughout the troposphere is lower during the wet season than the dry, but because the trade wind inversion lingers in this area, AP POF remains higher over the West Indies than in Central America.

The western lobe of the North Atlantic High, which crosses the area in the middle of the wet season, bears watching. As the lobe swings from east to west, the trade wind inversion strengthens east of 70° N; the results include a "mini-dry season," a decrease in precipitation and an increase in the frequency of mid-level AP. The passage of the ridge produces an AP maximum about July (see Figure B-5-5, page B-87).

Orographic circulations dominate flow patterns on the leeward sides of islands, partly because insolation is so strong this time of year and partly because the trade winds are deflected by mountains. Trade winds couple with sea/land breezes to produce large boundaries between the moist air at low levels and the drier air aloft. For this reason, *boundary-layer* AP occurrence frequency and its diurnal change are greater on the leeward than on the windward side. Mid- and upper-level AP is about the same on both sides of the mountain ridges. For example, compare San Juan, on the windward side of Puerto Rico (Figure B-6-1-C, page B-90), with Santo Domingo, on the leeward side of Hispaniola (Figure B-5-1-C, page B-73). An interesting effect of the orographic land/sea breeze couplet is a ring of clear air that often forms around smaller islands like Puerto Rico. The clear band signals the presence of superrefractive layers and the possibility of ducting.

As in Central America, the couplet of orographic and sea/land breeze circulations produces convective activity almost daily. Confused AP patterns are produced by interacting gust fronts near thunderstorms; these patterns are much too chaotic to predict.

A factor often missed in forecasting Caribbean weather is the Saharan Air Layer, or SAL (Carlson and Prospero, 1972; Diaz et al., 1972; and Karyampudi, 1987). The SAL is an elevated mixed layer that forms over the Sahara Desert and is advected intact all the way across the Atlantic. It is hypothesized that the SAL is a significant contributor to the character of the trade wind inversion. Using satellite imagery, Carlson and Prospero (1972) tracked the movement of a SAL's dust-laden air all the way from the Sahara and through the West Indies to Barbados. There is significant AP associated with the SAL, and tracking the phenomenon helps in forecasting increases in trade wind inversion strength. The percent occurrence frequencies of ducting at the level of the inversion base (5,000 to 9,000 feet), and of subrefraction above that, are very high.

Throughout most of the West Indies, there is a small peak in the occurrence of ducting and superrefraction between 2,000 and 4,000 feet (e.g., Figure B-6-1-C). A few stations show a diurnal cycle as well as a seasonal difference. Analysis of those soundings that showed ducting and/or superrefraction within that layer also showed that while moisture decreased sharply with height, the temperature lapse rate was almost adiabatic. The two lapse rates opposed each other, but the moisture change dominated. Ducting and/or a superrefractive layer were present, but a subrefractive layer did not follow as it does in many other situations. Winds were constant throughout the lower troposphere. We could not find an explanation for this stratification, and there was nothing in our data that suggested a physical mechanism. Be that as it may, the phenomenon *does* exist, and forecasters should be alert for it.

Tropical disturbances (easterly waves, tropical cyclones, subtropical lows, and trade wind surges) peak in September, near the end of the wet season. Even though these disturbances affect the West Indies more than other parts of the Caribbean Basin, they are usually so well mixed that AP is minimal. Attenuation, on the other hand, is a serious problem. Subtropical lows are usually surrounded by a large zone of weak subsidence that creates superrefractive layers. These cyclones are believed to be partly responsible for the "Temporale", a stratiform, drizzly weather system.

WEST INDIES

WET SEASON, Cont'd

Beneath the Temporales' low cloud, in the drizzle, propagation is near normal; above the stratus deck, however, the rapid decrease in moisture forms a superrefractive layer. The moisture gradient is rarely strong enough to produce ducting.

West Indian weather is moderated significantly by warm ocean waters. Sea surface temperatures average

84°F (29°C) during the wet season. As a result, evaporation ducts are prevalent in the lowest 200 feet (60 meters). These ducts, however, are not as strong as in other parts of the world, such as the Persian Gulf. As mentioned in Chapter 2, evaporation ducts are rarely detected by radiosonde, and are not shown as part of the climatology in the appendices.

WET-TO-DRY TRANSITION

The wet-to-dry transition begins with the southward movement of the North Atlantic High. Trade winds begin to strengthen and veer to the southeast, while the trade wind inversion strengthens and lowers to an average height of around 8,000 feet (Gutnick, 1958). The result is a sharp decrease in convective activity and a dramatic increase in ducting and superrefraction. Polar fronts start entering the region, but they rarely reach

farther south than Hispaniola. Boundary layer AP decreases in occurrence frequency, but mid-level AP increases. The transition is marked by chaotic swings between wet and dry season characteristics, with a tendency toward the wet season. To understand transitional AP patterns, forecasters must be familiar with the characteristics of both wet and dry seasons.

DRY SEASON

As the North Atlantic High slides southward, the trade winds and trade wind inversion intensify. As a result, ducting and superrefraction POFs are at their maximum for the year (70% and 85% respectively; compare Figures A-1-1 and A-1-2 with A-3-1 and A-3-2). The frequency of occurrence for ducting and superrefraction at the height of the trade wind inversion (which averages 7,500 feet) goes from a layer average of 9% during the wet season (Figure B-6-1-C) to 19% during the dry season (Figure B-6-3-C). Because of mixing, the frequency of subrefraction in the layer above the inversion parallels that of ducting and superrefraction.

Dry season trade winds (at 14 knots) are not much stronger than the wet season's 8 knots, and there is little seasonal change in boundary-layer mesoscale circulations. The POF of AP in the boundary-layer is almost the same throughout the year, but there is less insolation than during the wet season. The frequency of dry season AP is a bit lower. For example, superrefraction occurs 33.7% of the time during the wet season at 00Z over Norman Manley, Jamaica (Figure B-4-1-C) compared to 24.2% during the dry season (Figure B-4-3-C).

The Saharan Air Layer (SAL) described in the wet season discussion is thought to affect the dry season

trade wind inversion, as well, but there is no known documentation to support that conclusion. It is true, however, that weaker insolation over the Sahara during this time of year results in the fact that the deep mixed layers are not as strong; they are, however, still prevalent.

As another consequence of the trade wind inversion's presence, convective activity and precipitation are at their annual minimum: the troublesome AP pattern produced by interacting gust fronts is seldom a problem. The Monsoon Trough has moved so far south that it has no effect on the West Indies, even at Grantley Adams, Barbados. Tropical disturbances continue to affect the area through November, but they are rare.

The main dry season weather disturbance is the northern polar surge, which rarely pushes farther south than Hispaniola. Except for fog that forms after frontal passage, these fronts rarely produce AP. They lift and destroy the trade wind inversion, thus eliminating ducting and superrefractive layers between 5,000 and 9,000 feet. As the cold air behind the front moves over the warmer (and usually wet) ground, fog forms. As discussed in Chapter 2, this type of advective fog usually forms a superrefractive layer.

WEST INDIES

DRY SEASON, Cont'd

As mentioned in the wet season discussion, there is a relative maximum in the vertical distribution of the POFs of ducting and superrefraction between 2,000 and 4,000 feet. For most stations, there is no significant seasonal change in this characteristic.

Winter sea surface temperatures cool to 77°F (25°C). Evaporation ducts are neither as strong nor as prevalent as during the wet season, but they continue to affect electromagnetic propagation in the boundary layer over open waters.

DRY-TO-WET TRANSITION

The dry-to-wet transition begins with the northeastward retreat of the North Atlantic High. Because of the northwest-southeast orientation of the island chain, the High leaves the West Indies, from Cuba to Barbados, at about the same time, usually by August. Its departure is highlighted by a 60-65% increase in convective cloudiness, a pronounced decrease in

mid-level AP, and an increase in boundary AP. This transition is also marked by chaotic swings between dry and wet season characteristics, with a tendency toward the dry season. To understand transitional AP patterns, forecasters must be familiar with the characteristics of both wet and dry seasons.

NORTHERN SOUTH AMERICA

As noted in the introduction to this chapter, the weather and terrain complexities of Northern South America made it necessary to divide the larger area into 12 climatologically similar subregions. Each of these 12 regions are shown in Figures 13-24 and discussed in an accompanying narrative. In several of these subregions for which upper-air data was unobtainable, a discussion of refractivity climatology was necessarily omitted.

THE COLOMBIAN CARIBBEAN PLAIN

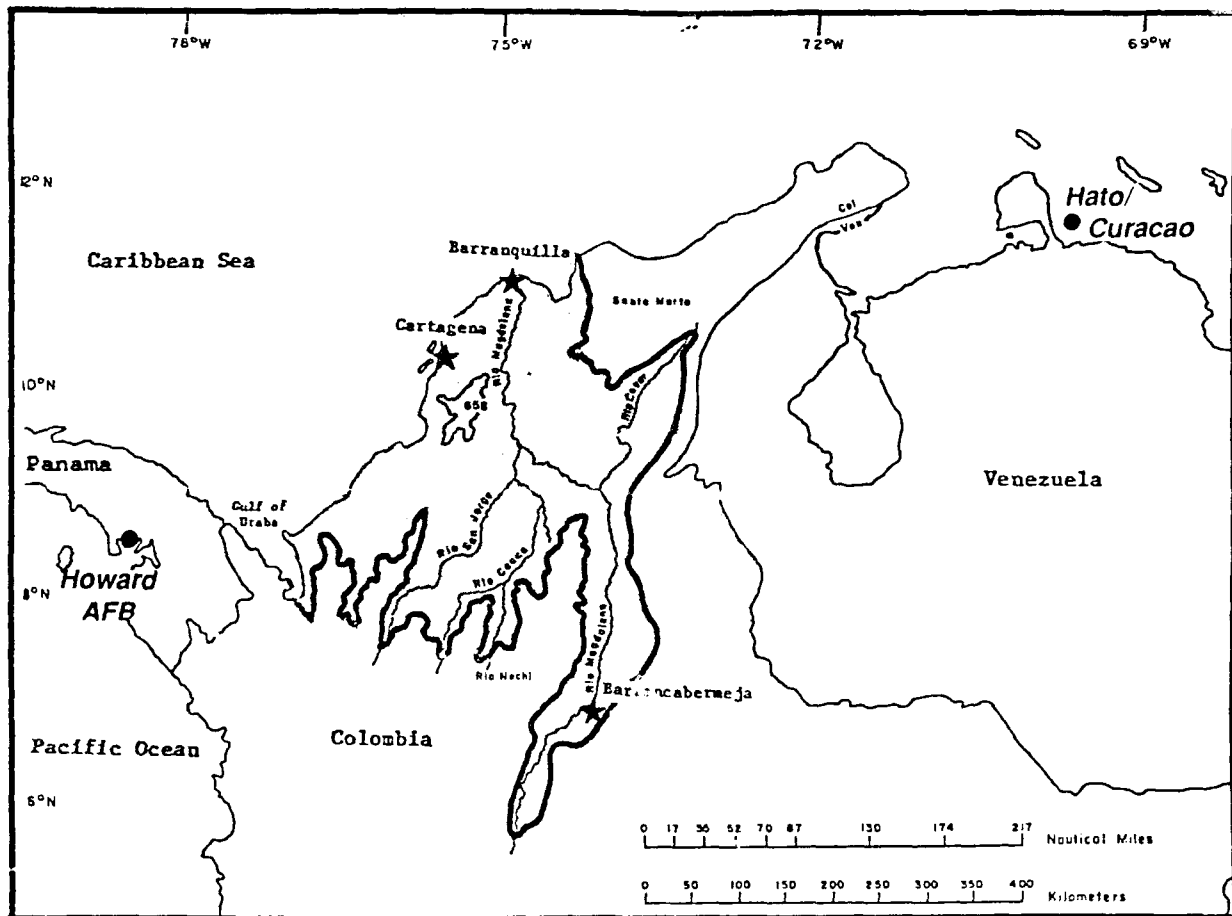


Figure 13. The Colombian Caribbean Plain. There is no upper-air data available from this region. However, climatologies from Howard AFB, Panama, to the west, and Curacao, to the east, along with general weather patterns over the area, are enough to support a discussion of AP.

WET SEASON

Because of Monsoon Trough oscillations, this area has two wet seasons. The primary runs from August through November, with a secondary from May through June. Dry-to-wet season transitions are abrupt. The

Monsoon Trough dominates the area during both wet seasons, resulting in a uniform stratification that leads to a low occurrence of AP.

COLOMBIAN CARIBBEAN PLAIN

WET SEASON, Cont'd

Winds are easterly to northeasterly at 10 to 15 knots. The coastal low-level jet goes through a typical diurnal cycle; peak winds reach 30 knots near 650 feet (200 meters) just before dawn, but return to gradient speeds by late morning. The jet induces upwelling in a long narrow band immediately offshore. The cool water stabilizes the lower atmosphere, producing a weak inversion and a superrefractive layer. The inversion is rarely strong

enough, however, to produce ducting. This AP pattern remains just offshore, advecting downwind into Panama.

Thunderstorms are common during wet seasons. About every 4th day they build up in the late afternoon over higher terrain and move out over the coastal plains during the evening; gust front AP patterns are prevalent.

DRY SEASON

The primary dry season is from December through March, with a secondary in July. The Monsoon Trough is south of the area during both dry seasons. The Northeast Trades and associated trade wind inversion enter the area during the primary dry season, leading to an increase in AP at about 4,000 feet. Since the trade wind inversion is absent in July, there is no AP increase during the secondary dry season.

One to three tenths stratus or stratocumulus forms late at night or early in the morning. Since ceilings are rare, stratus-induced AP is seldom a problem.

With the strengthening of the northeast trades during the primary (December-March) dry season, the low-level jet becomes much stronger, intensifying upwelling along the coast. This, in turn, strengthens the surface inversion just offshore. As a result, superrefractive (even ducting) layers are prevalent.

Thunderstorms occur only over the Andean foothills and the Santa Marta Massif during the primary dry season; AP patterns from gust fronts are rare.

THE VENEZUELAN NORTH COAST

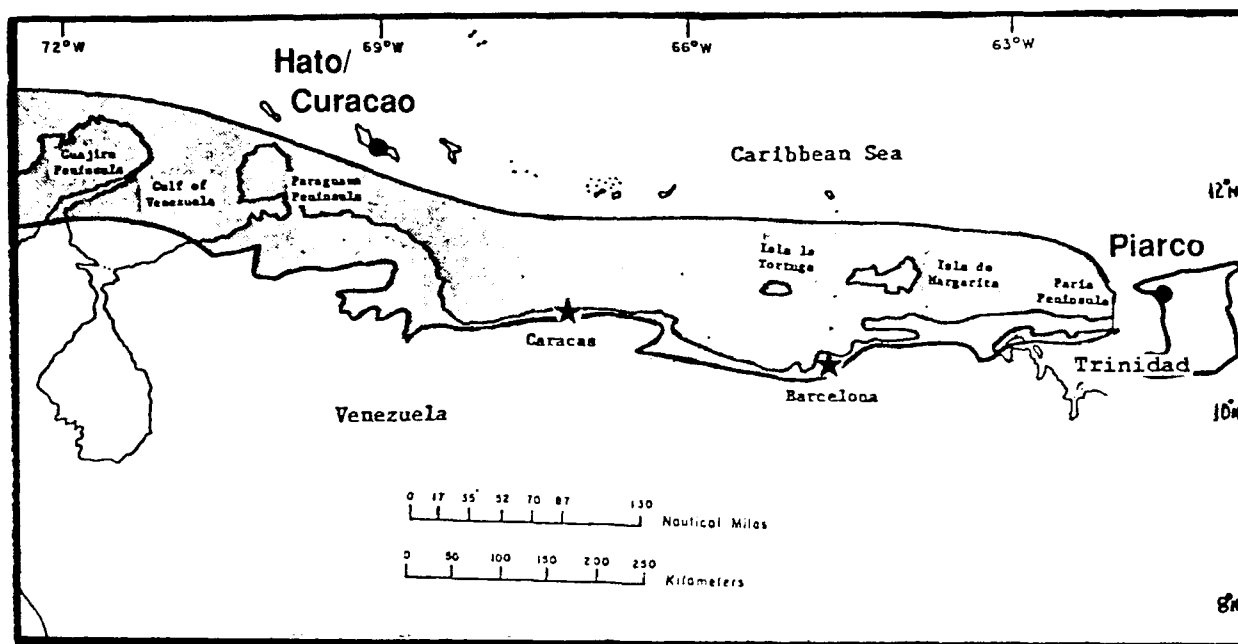


Figure 14. The Venezuelan North Coast.

WET SEASON

Because of the northward retreat of the North Atlantic High in northern hemisphere summer, the trade wind inversion is absent during the wet season and the AP POF between 5,000 and 10,000 feet is low. Trade winds are weak and variable. The Monsoon Trough rarely reaches far enough north to affect this area, and the mountain/sea breeze dominates the circulation pattern.

Curacao shows a remarkably high subrefraction POF in the lowest 500 feet, with 66.3% at 00Z and 66.7% at 12Z (see Figure B-13-1-C, page B-209). The same pattern is also seen over Piarcó, Trinidad, but it is not as prevalent (27.4% at 12Z--see Figure B-12-1-C, page B-192). This stratification is the result of the complicated flow pattern in the area. The orientation of topography to the prevailing surface winds leads to a strong surface divergent pattern in the thermally driven mountain, coastal, and sea breeze circulations. Balancing convergence aloft, however, produces subsidence that suppresses precipitation (Lahey, 1980). As a result, this tropical region is remarkably arid, and the boundary layer is anomalously warm and dry compared to the layers above. This leads to a sharp

increase in dew point with height and a subrefractive layer, usually within the lowest 300 feet.

Subsidence aloft creates an inversion between 1,000 and 4,000 feet that caps the moisture flux from the sea and creates a narrow zone of sharply decreasing moisture with height. This structure is more evident at 00Z than at 12Z because of the effects of diurnal heating. By the afternoon, the temperature/moisture inversion is strong enough to produce at least superrefraction half the time (18.4% ducting + 31.9% superrefraction = 50.3%--see Figure B-13-1-C, 00Z, in the 2,000-2,500 foot layer). Note that, in the morning, it is at least superrefractive only 14.5% of the time (3.3% ducting + 11.2% superrefraction; see Figure B-13-1-C, 12Z, in the 2,000-2,500 foot layer).

The fact that topographic divergence is stronger over the western half of the region than over the eastern half helps explain why AP is more prevalent over Curacao than over Piarcó. Note, however, that Piarcó's POF of subrefraction from about 9,000 to 19,000 feet (Figure B-12-1-C) stands out from the rest of the profile. This

VENEZUELAN NORTH COAST

WET SEASON, Cont'd

may be a result of the complex flow patterns discussed above since it shows up more during wet than dry seasons; the actual cause, however, is inconclusive because of lack of data.

Late in the season (by November), northern hemisphere polar incursions occur often enough to be a factor:

by the time they reach the Venezuelan coast, however, they have moderated to become only wind shift boundaries or shear lines. Discontinuities in the wind field disrupt the complex flow pattern described above and eliminate AP, except in the vicinity of convective showers.

WET-TO-DRY TRANSITION

The transition from the wet to an *extremely* dry season doesn't take long. As soon as the North Atlantic High strengthens enough to reach the northern coast of South America, all the transitory systems (polar fronts, easterly waves, and tropical cyclones) are suddenly diverted by

the strengthening trade winds, usually in November or December. Until the inversion moves into the area, however, transitory systems keep the atmosphere so churned up that it's difficult to find order, much less forecast AP.

DRY SEASON

The only significant change from the wet season to the dry is caused by the presence and effect of the trade wind inversion. As mentioned earlier, the inversion enters the area during November or December. Once it does, order is restored as it effectively suppresses convection, eliminates the last precipitation of the wet season, and makes the dry season *extremely* dry. The persistence of the trade wind inversion allows the boundary to mix thoroughly, weakening (and sometimes eliminating) the increases in dew point with height that produce subrefractive layers. Subrefraction POF in the lower layers, therefore, is less than during the rest of the year.

The trade wind inversion is also responsible for an increase in ducting and superrefraction between 4,500 and 9,000 feet (11.9% ducting + 14.6% superrefraction = 26.5% --see Figure B-13-3-C, 00Z, in the 7,000-8,000 foot layer). In Appendix A, pages A-8 and A-9, you can see that ducting and superrefraction occur more than 70% of the time in the layer from the surface to 20,000 feet. This suggests: that the trade wind inversion is present most of the time, but that it oscillates through the layers from 4,500 to 9,000 feet. Figure B-13-1-C shows that the inversion doesn't favor any one of those layers, and that POFs are uniformly distributed.

DRY-TO-WET TRANSITION

The dry-to-wet transition takes longer than the wet-to-dry. It usually lasts the entire 2 months of April and May as the trade wind inversion dies away gradually rather than moving away suddenly as in November and

December. Because of this, AP patterns oscillate between characteristics of the dry season and the wet season, and make AP forecasting even more difficult than at the end of the year.

THE LAKE MARACAIBO BASIN

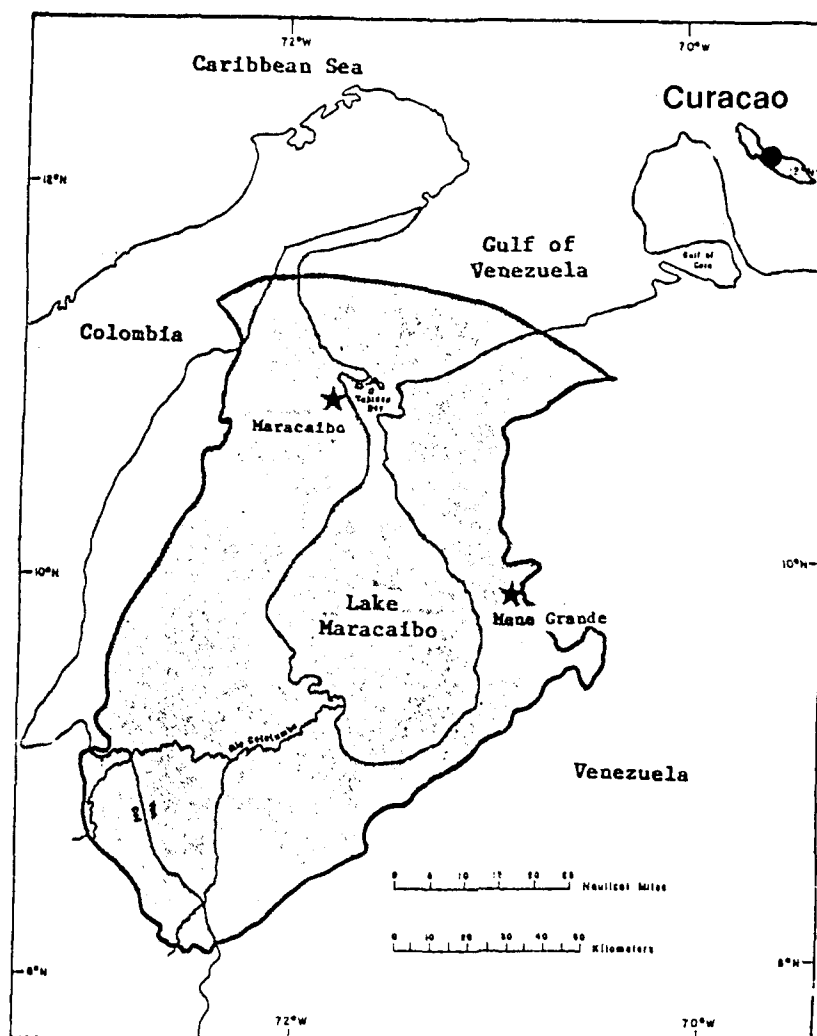


Figure 15. The Lake Maracaibo Basin. This region comprises Lake Maracaibo and the plains that surround it. Because of the surrounding mountain ranges, the basin has its own unique "mesoscale" climate. Although macroscale flow patterns affect the area, they are masked by the more dominant mesoscale and microscale effects most of the year. The closest upper-air station (Curacao), is outside this mesoclimate system, and not much help. Some AP patterns, however, can be inferred from the general climatology of the area.

WET SEASON

South of 10° N, the Monsoon Trough is the dominant factor during the wet season. The mountain/valley/lake breeze circulation is considerably weaker than during the dry season. AP is at its minimum for the year. North of 10° N, a weakened trade wind inversion with bases at

6,500-7,500 feet (1,980-2,300 meters) lingers; superrefraction remains a problem at that level throughout the year. With the Monsoon Trough farther south, mountain/valley/lake breezes dominate circulation and result in strong superrefractive POF diurnal oscillation.

LAKE MARACAIBO BASIN

WET SEASON, Cont'd

North of the lake (in the "semiarid zone") conditions are favorable for boundary layer subrefraction (local climatology suggests that low-level subrefraction occurs more than two-thirds of the time). South of the lake, with a larger amount of rainfall, subrefraction is not as much of a problem. Evaporation ducting is present over the lake but is not a dominant feature.

Southern hemisphere cold surges occasionally penetrate the Maracaibo Basin in September and early October, filling the basin with cool air and creating a superrefractive or ducting layer at the top of the cool dome that often extends throughout the basin. This condition persists until skies clear and daytime heating destroys the pool of cool air.

WET-TO-DRY TRANSITION

As the northeasterly trades strengthen, the Monsoon Trough is pushed southward and away from the basin. AP POF increases between 6,500 and 7,500 feet as the trade wind inversion returns and strengthens gradually.

Transition timing is totally dependent on the movement of the Monsoon Trough and how many times the trough line fluctuates before it is forced out of the area.

DRY SEASON

The dominant feature during the dry season is the mountain/valley/lake breeze circulation, which produces large diurnal differences in AP. As discussed in Chapter 2, superrefraction (and occasional ducting) occurs where the circulation is sinking. Because this circulation is diurnal, the location of the AP changes. The mountain breeze during the night and early morning sets up an inversion along mountain ranges. The valley breeze during late morning and afternoon shifts the inversion to the valley.

Northeast flow off of the highlands of northern Venezuela advects an elevated mixed Layer over the basin. The boundary between cooler, wetter air at the surface and the warmer, much drier air from the highlands is usually at 2,000 to 3,500 feet. The AP POF is higher in the evening than in morning due to diurnal heating changes in the highlands and the oscillation of warm and cool advection.

DRY-TO-WET SEASON

South of 10° N, the trade wind inversion is replaced by the Monsoon Trough. AP POF decreases. The dry-to-wet transition usually takes longer than the

wet-to-dry as the Monsoon Trough is forced to move through and across the rough terrain.

THE VENEZUELAN ANDES

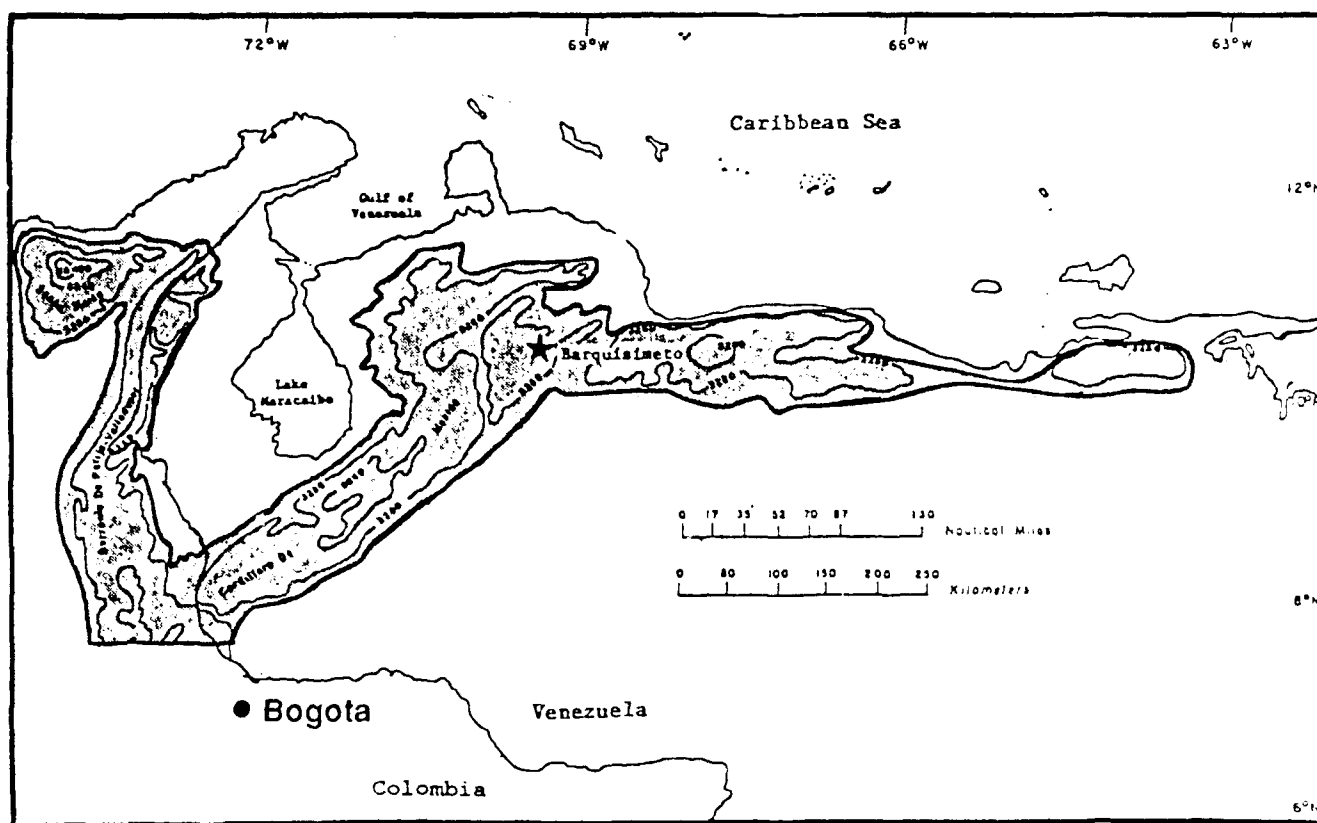


Figure 16. The Venezuelan Andes. There was not enough upper-air data in this area for an analysis that would support a discussion of refractivity climatology. The climatology that comes closest, however, might be that of Bogotá, Colombia.

THE ORINOCO RIVER BASIN

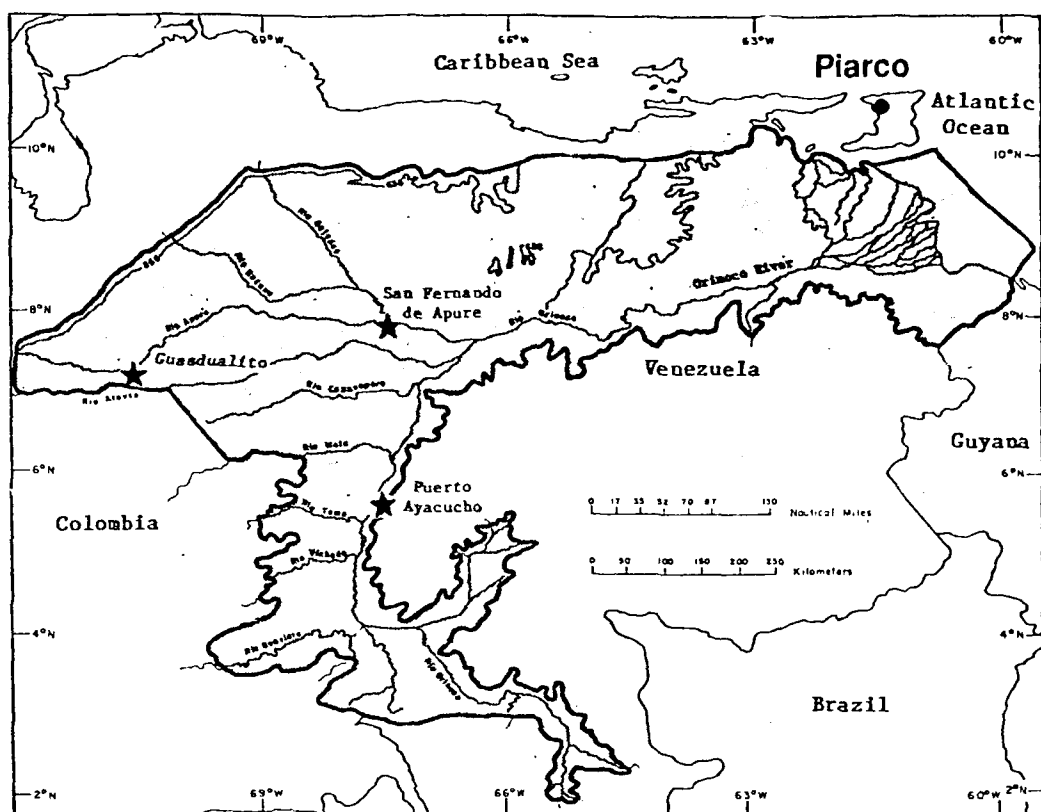


Figure 17 The Orinoco River Basin. Like the Venezuelan Andes, there was not enough upper-air data in this area to perform an analysis that would support a discussion of refractivity climatology. The climatology of coastal portions, however, might be similar to that of Piarco, Trinidad.

THE GUYANA COASTAL PLAIN

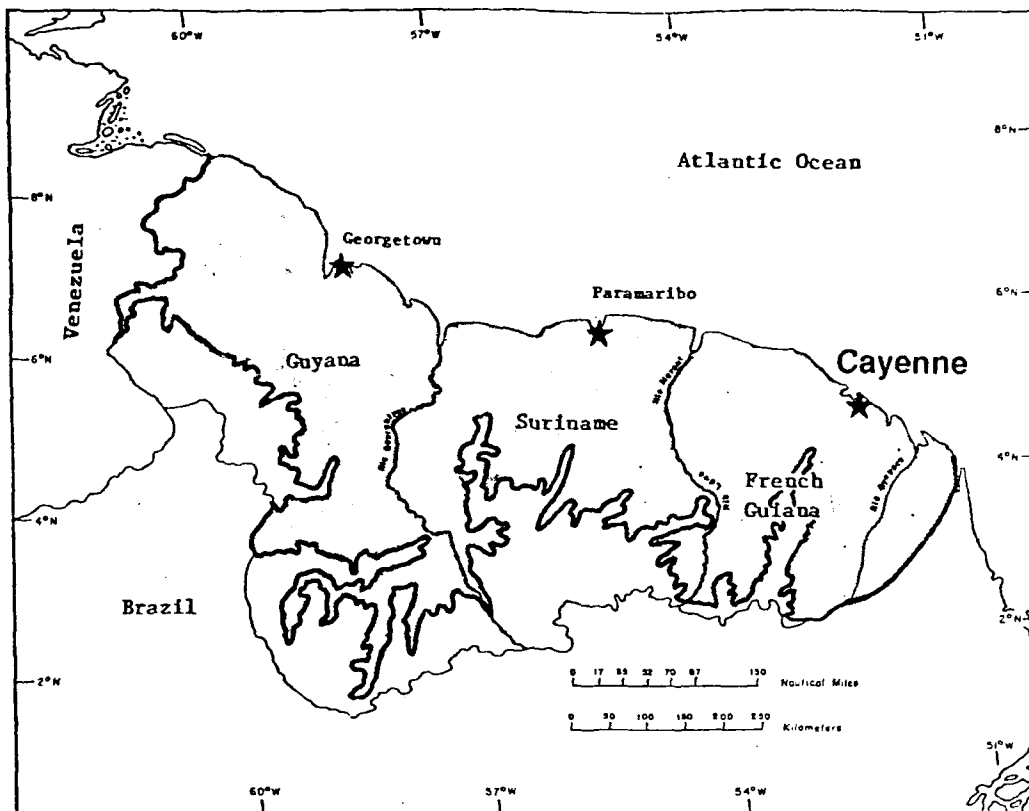


Figure 18. The Guyana Coastal Plain. This area, especially the interior, lacks the upper-air reporting stations necessary to produce a complete AP analysis. Although 12Z data from Cayenne, French Guiana, was used to prepare the following discussion, it was not included in the Appendix because much of it was suspect.

WET SEASON

From December to July, the Monsoon Trough lies south of this area. Easterly flow in the boundary layer advects cooler and wetter air from the Atlantic under warmer and drier air inland, creating coastal stratification that is conducive to superrefraction. The gradient is strong enough to produce superrefraction about a fifth of the time, but is rarely intense enough for ducting.

At times, when lobes of the North Atlantic High can't reach the area and trade winds at the surface are very light, sea breeze circulations dominate in a 200-mile zone along the coast. The trades at mid-levels actually help vent the upper branch of the circulation. Land/sea temperature differences are greatest in the morning, when the circulation is strongest. Subsidence ensues in

mid-levels just inland, producing a superrefractive layer at around 1,000 feet.

The northeast trade wind inversion extends as far south as the Guyana Coastal Plain only about 40% of the time from January to April, and less than 20% the rest of the time. When the inversion is present, heights are highly variable from one event to another, ranging from 5,500 to more than 12,000 feet. Superrefraction heights are correspondingly variable.

The Monsoon Trough lingers over the area from May through July, when AP is not very prevalent. The atmosphere remains well mixed until the trough moves south of the region. AP is at its minimum in June.

GUYANA COASTAL PLAIN

WET-TO-DRY TRANSITION

The Monsoon Trough passes to the north of the area sometime during August; the transition is marked by the oscillation between the Monsoon regime and the southeast trade winds. AP increases in frequency.

The southeast trades bring warmer and drier air into the area, setting up a low-level subrefractive layer that is not usually deep enough to cause major problems.

DRY SEASON

AP doesn't seem to be a problem during the dry season. The trade wind inversion associated with the South Atlantic High reaches French Guyana and into Suriname, but not as far north as Guyana. When the inversion is present, it's usually at about 5,000 feet in September, 9,500 feet by October. Ducting and

superrefraction occur accordingly. The strength of the inversion is about half that of the northeast trade wind inversion that affects the area during the wet season. The Southeast trade winds continue to advect warmer and drier air inland, forming subrefractive layers in the lowest 500 feet.

DRY-TO-WET TRANSITION

The Monsoon Trough begins its southward push during November. The southeast trades begin to lose their influence, and AP is at a relative minimum. Fog is prevalent now, especially in the interior and around

sunrise (10Z). With an increase in fog occurrence comes an increase in the subrefractive boundary layers. Fog (and the attendant subrefraction) dissipates by 12Z.

THE GUYANA AND COLOMBIAN HIGHLANDS

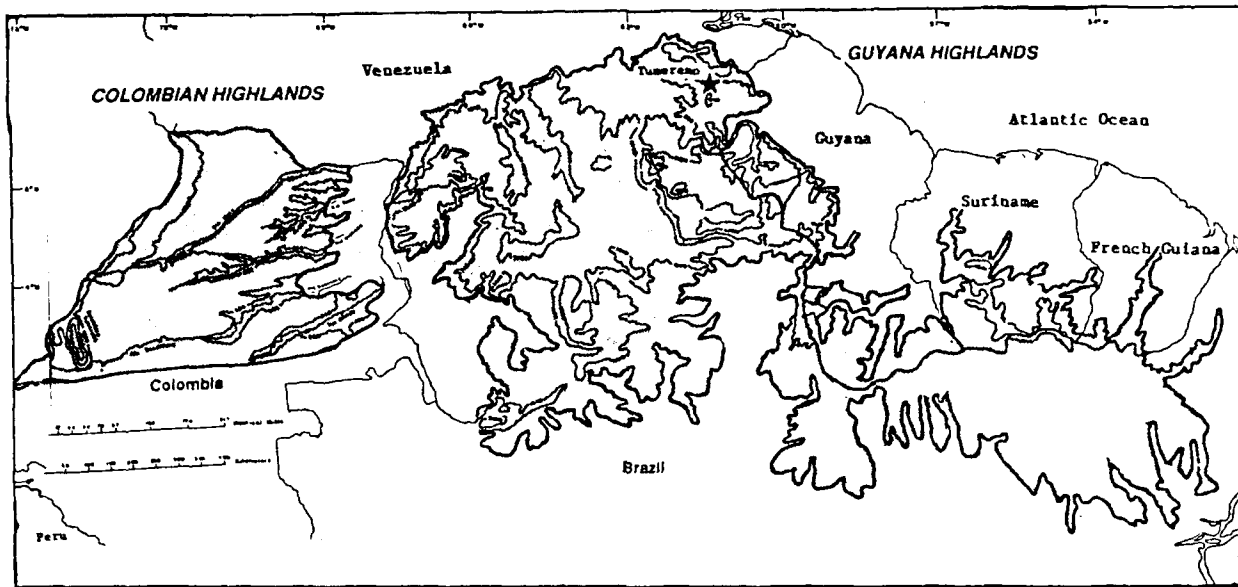


Figure 19. The Guyana and Colombian Highlands. There was not enough upper-air data in this area for an analysis that would support a discussion of refractivity climatology. By making inferences from what little data was available, however, it seems that AP is prevalent here.

THE ANDES MOUNTAINS

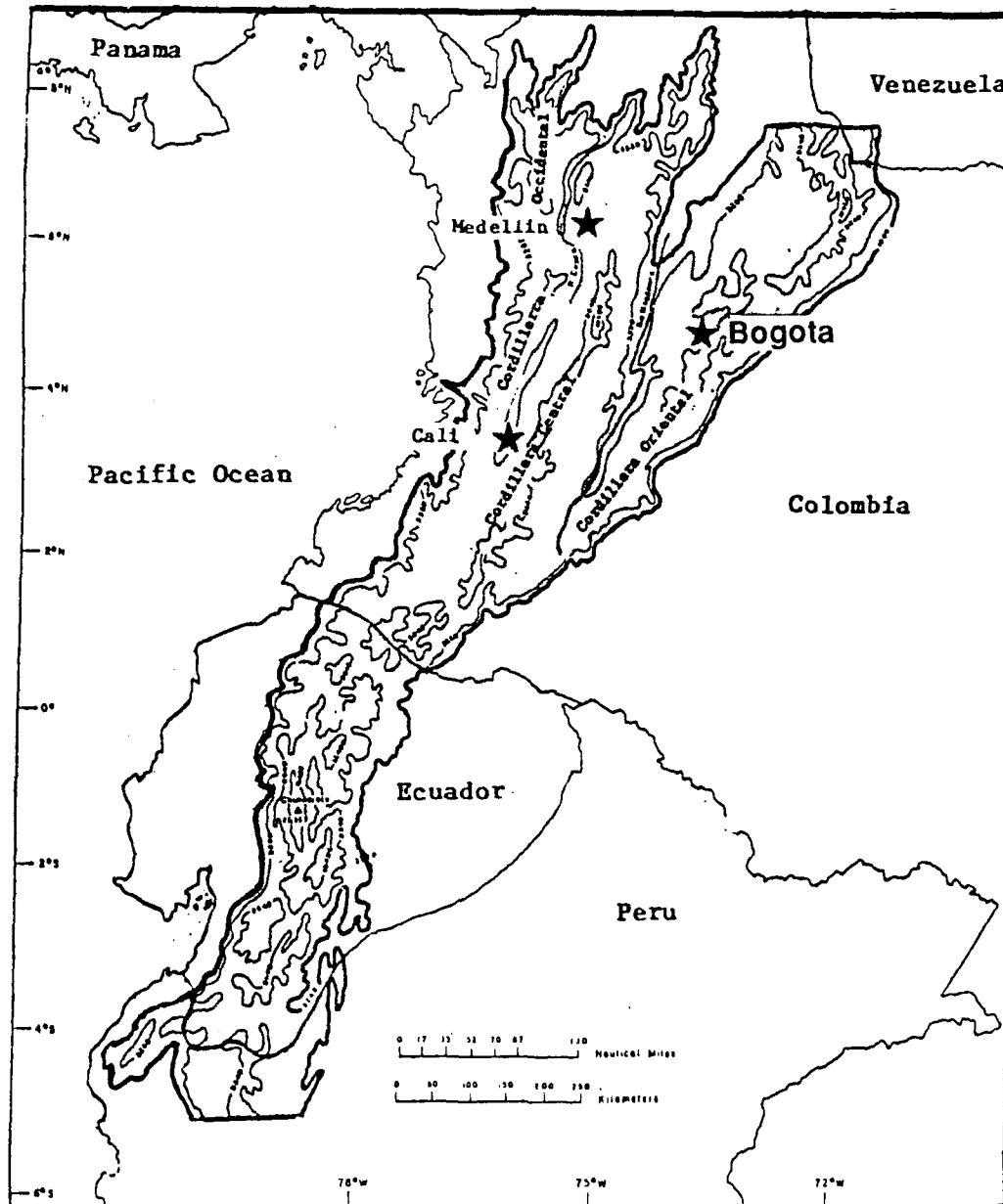


Figure 20. The Andes Mountains. Bogota, Colombia (elevation 8,345 feet/2541 meters) offers the only data available for this area. Figure B-15 shows that there is very little AP throughout the year. In fact, comparing Figure B-15-5 with similar figures for the other 17 stations shows that Bogota has the lowest AP occurrence frequency in the entire Caribbean Basin. A detailed discussion of refractivity here is therefore considered unnecessary. Operators should note, however, that complicated mesoscale circulations can create gradients that produce AP. The circulations are so erratic that Bogota's upper-air soundings probably miss the most significant features. Note also that stratifications resulting from local circulations are usually slanted. As discussed in Chapter 1, this allows for AP at unusual elevation angles.

THE COLOMBIAN PACIFIC COASTAL PLAIN

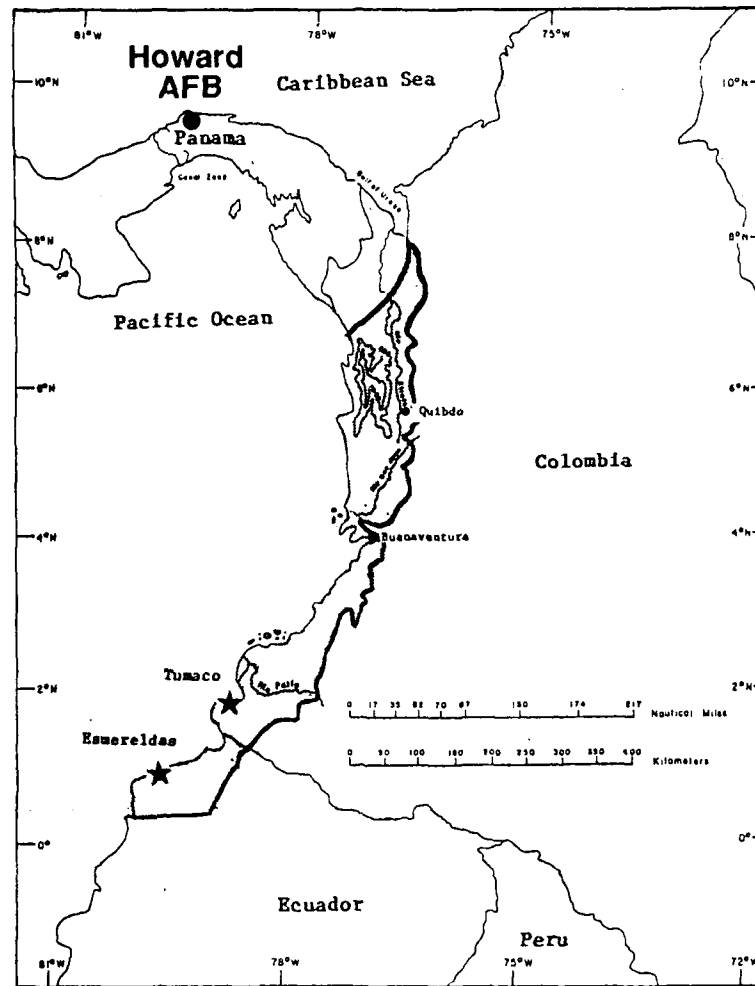


Figure 21. The Colombian Pacific Coastal Plain.

WET SEASON

There is no real "dry season" west of the Andes Mountains--the wet season persists here the year-round. There is no upper-air data for this region, but a few characteristics of the AP pattern can be inferred from general climatology and data from Howard AFB.

The dominant feature here, and the main cause of the year-long wet season, is the presence of the Monsoon Trough throughout most of the year. Upslope flow also enhances precipitation, making the area one of the

wettest in the world. Since constant mixing of precipitation results in uniform stratification, AP is rare. When the Trough is at its northernmost point (from September to October), equatorial westerlies flow against the Andes. A subsidence inversion, associated with southern hemisphere southeasterly trades, moves into the area and raises the POF of ducting and superrefraction between 3,000 and 5,000 feet. A minor letup in precipitation signals the presence of the inversion and a rise in AP POF.

COLOMBIAN PACIFIC COASTAL PLAIN

WET SEASON, Cont'd

Even with extremely heavy rainfall, the weather here has a diurnal cycle. The rains end at dawn, when thick stratus/stratocumulus forms with bases between 500 and 1,000 feet (150 and 305 meters) and tops between 3,000 and 6,000 feet (915 and 1,830 meters). A vertical AP pattern of subrefraction in the lower layers dominates, with superrefraction and ducting just above the cloud deck.

By late morning, AP disappears as the cloud deck breaks up. By sunset, skies are overcast with stratocumulus and heavy cumulus; rain showers begin. Subrefraction appears in the lower layers after the rain stops in the morning, but superrefraction and ducting persist at the cloud-top level through the night. Thunderstorms are rare, along with the complicated AP patterns associated with gust front interaction.

THE ECUADORIAN PACIFIC COAST

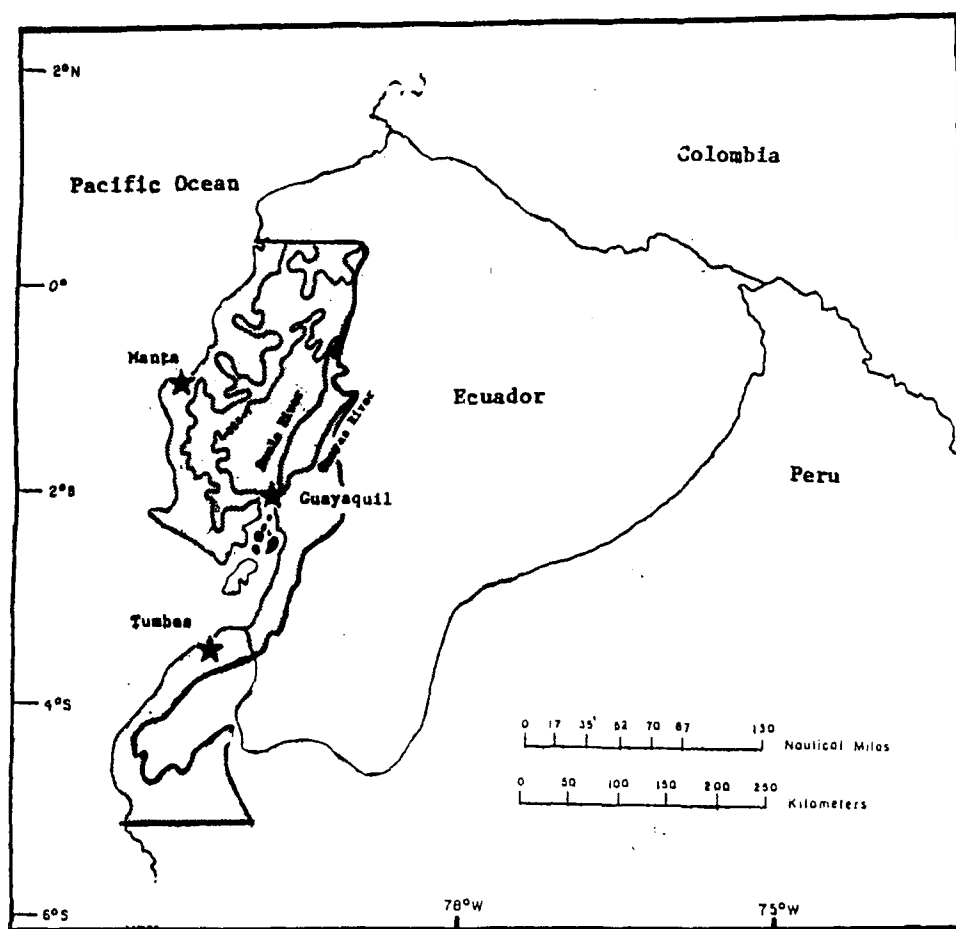


Figure 22. The Ecuadorian Pacific Coast. Although there was not enough upper-air data in this area for an analysis that would support a discussion of refractivity climatology, it should be similar to that of the Colombian Pacific Coast, with only small differences in seasonal timing. Note that Appendix A and Figure 8 suggest that ducting and superrefraction POFs are at their maximum off the western coast of South America. This is probably due to the combination of upwelling, the southeast trade wind inversion, and the advection of warmer, drier air from the Andean slopes.

THE EASTERN (LOWER) AMAZON BASIN

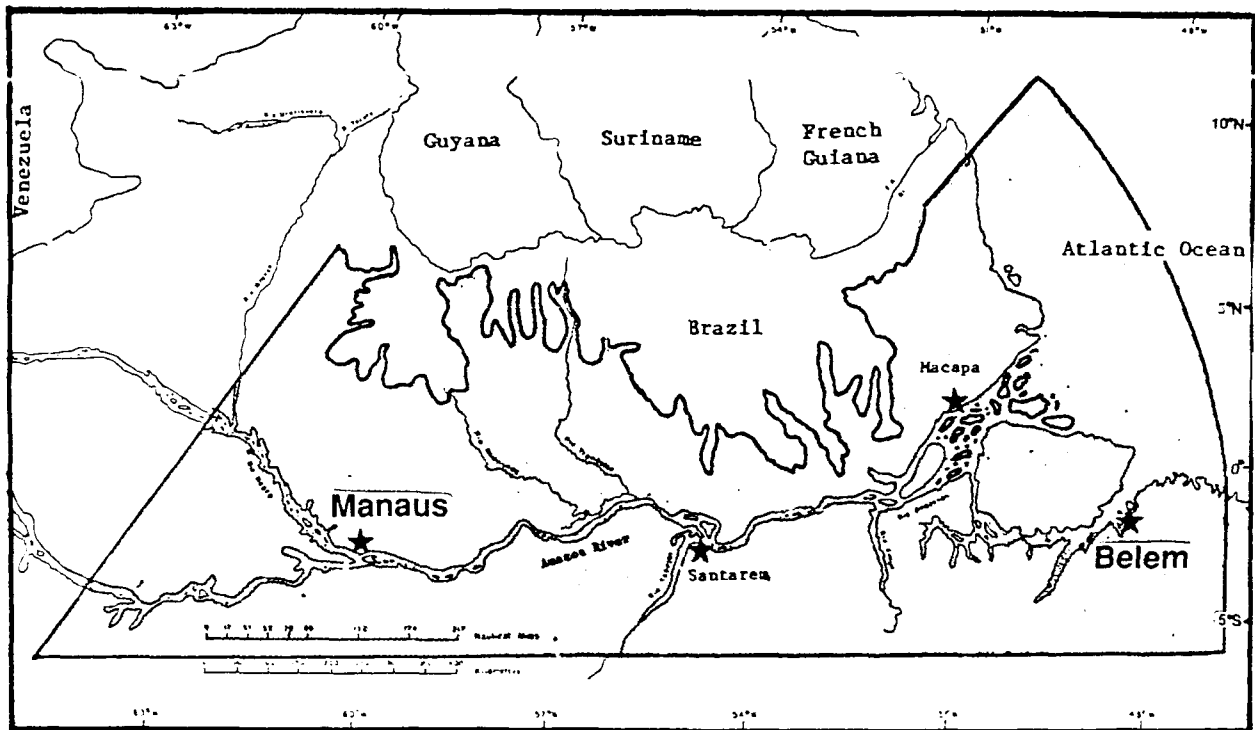


Figure 23. Eastern Amazon Basin. There are two good upper-air reporting stations in this area: Belém and Manaus, both in Brazil. Like most stations in this part of the world, however, they only report at 12Z. As a result, diurnal variations can only be inferred.

Two peculiarities of this area are worth mentioning. First, the seasons are reversed from those in the Caribbean. This becomes evident when we compare Figure B-16-5 (Belém), where the maximum AP is between June and October, with Figure B-6-5 (San Juan, Puerto Rico), where the maximum is between January and April. Second, this is the heart of South America's tropical rain forest. Research has shown that typical rain forests release almost half as much water vapor back into the atmosphere as they receive in rainfall. This huge evapotranspiration of water vapor matches (and may

exceed) the vapor flux from the oceans. The effect is greater during the day than at night because of vegetation's response to sunlight. As discussed in Chapter 2, this leads to a strong vertical moisture gradient that creates strong ducting layers (evaporation ducts). It has been suggested that the pumping of vast amounts of moisture into the boundary layer leads to stronger and more frequent ducts above the Amazon Rain Forest than over the Persian Gulf, the recognized leader in evaporation ducting. So far, of course, there is no data to support this.

WET SEASON

Overall, there is very little AP during the wet season. With the Monsoon Trough over or just south of this area from January through May, thunderstorms are common and the dominant factor in AP production is interacting gust fronts. There are usually so many convective cells that the AP pattern is complicated--but normally not so

complicated that forecasters can't make *some* sense of it. The intensely humid boundary layer in the interior of the Amazon Basin extends to 2,000 feet MSL, with drier air above. The resulting moisture gradient is often strong enough to form superrefractive layers.

EASTERN AMAZON BASIN

WET SEASON, Cont'd

With the incredible amount of moisture in the air, a little radiative cooling leads to dense fog banks. As noted in Chapter 2, radiative fogs are subrefractive. The fog layers are dense and thick enough to cause major problems by "short-ranging" EM systems.

Land/sea breezes have a major effect along coasts. Sharp changes in topography just inland complicate circulation patterns (for example, along the Venezuelan

coast); boundary layer AP patterns should be similar to those around Howard AFB, but there isn't enough data to be certain. Along the Guyana Highlands, mountain/valley circulations dominate; convection is particularly heavy along the resulting convergence zones, enhancing boundaries enough to produce superrefractive layers, usually around 2,000 feet. These are rarely strong enough to produce ducting.

WET-TO-DRY TRANSITION

The June transition takes place quickly. As the Monsoon Trough moves northward, the southeast trades

and the associated inversion begin to affect the area.

DRY SEASON

Once the Southeast trades are established, convective rains diminish. The trade wind inversion averages between 2,000 and 4,000 feet as POFs of ducting and superrefractive layers increase dramatically--see Figure B-16-3-C. The Southeastern Atlantic High reaches only halfway into the Amazon interior. The low-level divergence noted in USAFETAC/TN-89/003 enhances the trade wind inversion, which is still only half as strong over Manaus as over Belem. As a result, ducting and superrefraction POFs are not as high in the 2,000 to 4,000 foot layer over Manaus as they are over Belem.

The moisture gradient at the top of the boundary layer noted in the wet season discussion is at its strongest during the dry season. This is due to a combination of two features: first, the surface is so saturated with water that the moisture flux remains strong even though

precipitation is not as frequent. Second, the southeast trade winds advect drier air over the area. Since the gradient is stronger, the POFs of ducting and superrefraction are higher at the top of the boundary layer (800-2,000 feet) during the dry season than during the wet season.

Fog occurs more often during the dry season because of cooler mornings: subrefraction is therefore more of a problem than in the wet season.

Polar surges from the south, which frequently reach the equator, become a factor. Convection is heavy along fronts. Extensive stratus decks occur in the cooler air behind the cold front: the standard stratus structure of subrefraction just below the stratus deck, topped by superrefraction or sometimes even ducting, is prevalent.

DRY-TO-WET TRANSITION

AP patterns from November through December oscillate from those of the dry season to those of the wet. Polar surge frequency decreases dramatically. The

Monsoon Trough returns, pushing the southeast trade wind inversion south.

THE WESTERN (UPPER) AMAZON BASIN

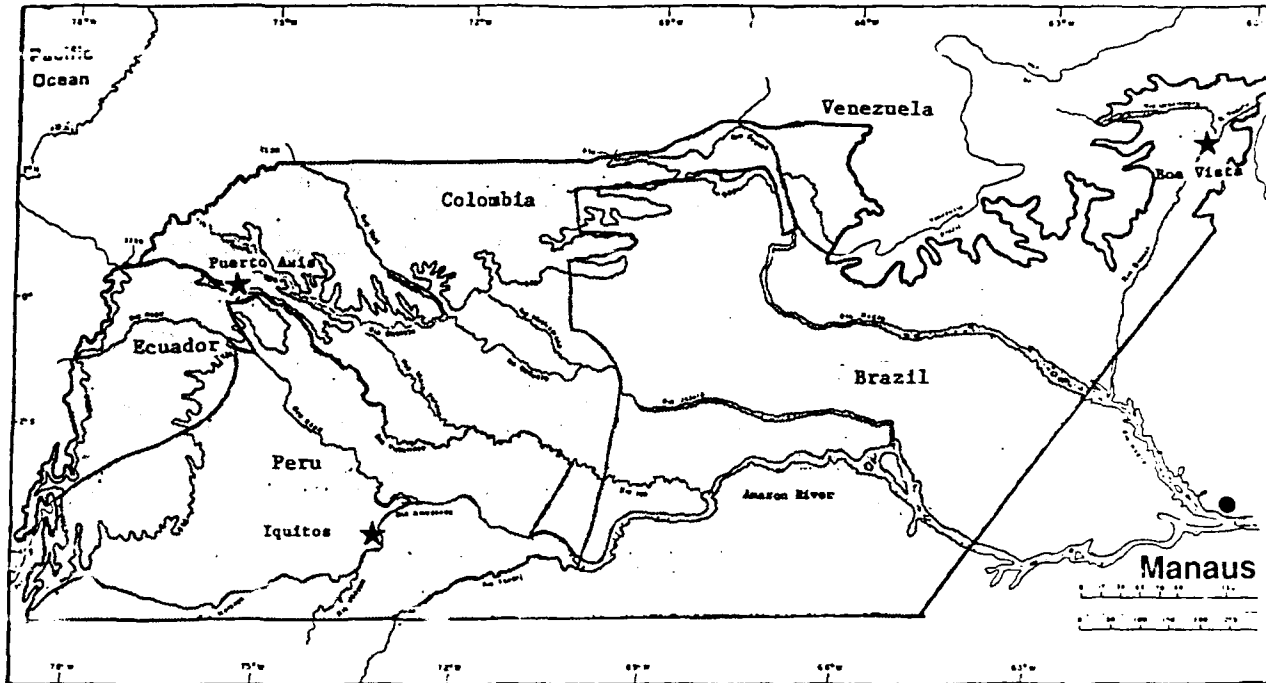


Figure 24. Western Amazon Basin. There is not enough upper-air data in this area for an analysis that would support a discussion of refractivity climatology. The topography, which rises toward the west, along with the absence of a dominant synoptic flow pattern, results in enough change from the climate at Manaus to cause uncertainty as to what really goes on in this region, weather-wise. One feature that may cause AP problems here, however, is the advection of an elevated mixed layer off the Guyana Highlands. The resulting stratification of hot and dry air over cooler and moister air is highly conducive to superrefraction and ducting. We suspect that the vertical boundary lies between 1,000 and 2,500 feet.

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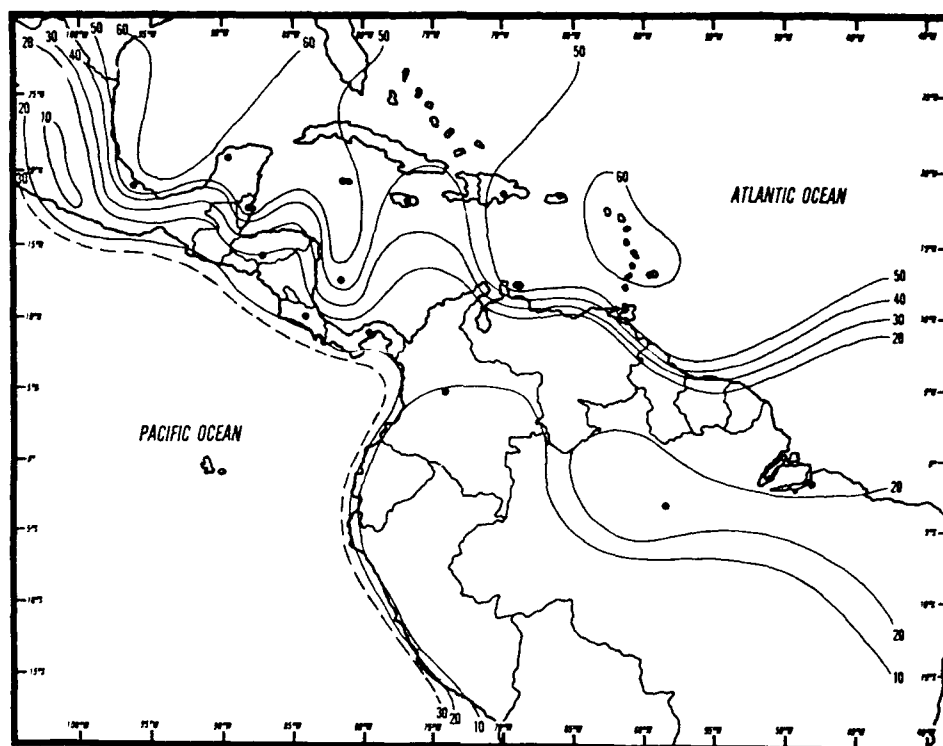
APPENDIX A

The maps in Appendix A show percent occurrence frequency (POF) of AP in the Caribbean Basin. The maps are grouped by season and by AP category (ducting, superrefraction, and subrefraction). See Chapter 3 for a detailed explanation of the maps and their content.

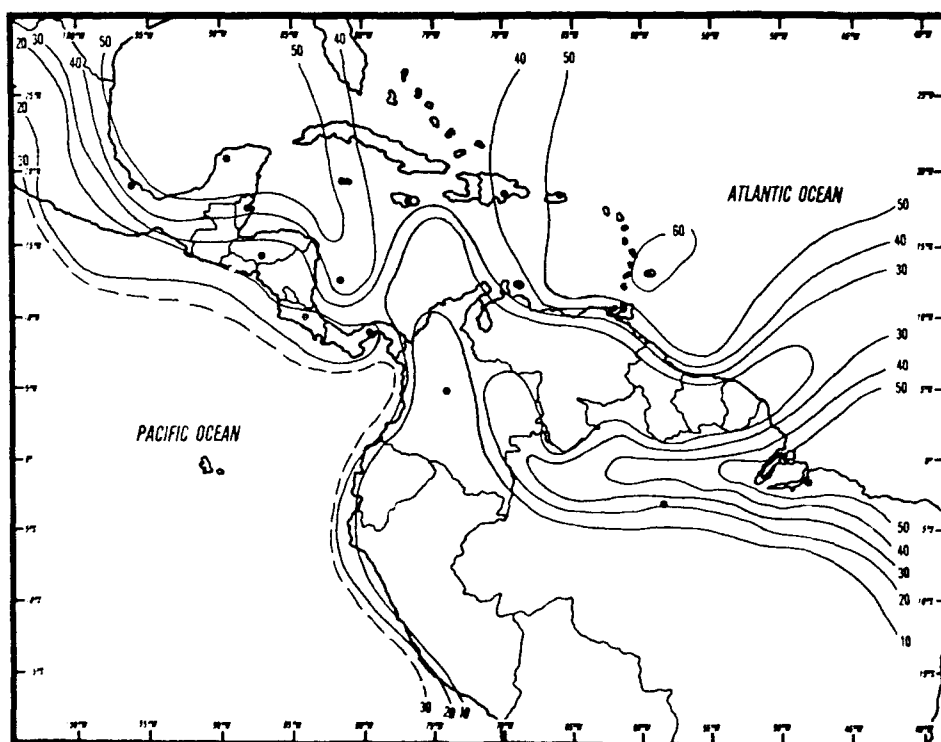
Season	AP Category	Page
Wet Season	Ducting	A-2
Wet Season	Superrefraction	A-3
Wet Season	Subrefraction	A-4
Wet-to-Dry Transition	Ducting	A-5
Wet-to-Dry Transition	Superrefraction	A-6
Wet-to-Dry Transition	Subrefraction	A-7
Dry Season	Ducting	A-8
Dry Season	Superrefraction	A-9
Dry Season	Subrefraction	A-10
Dry-to-Wet Transition	Ducting	A-11
Dry-to-Wet Transition	Superrefraction	A-12
Dry-to-Wet Transition	Subrefraction	A-13

WET SEASON

DUCTING



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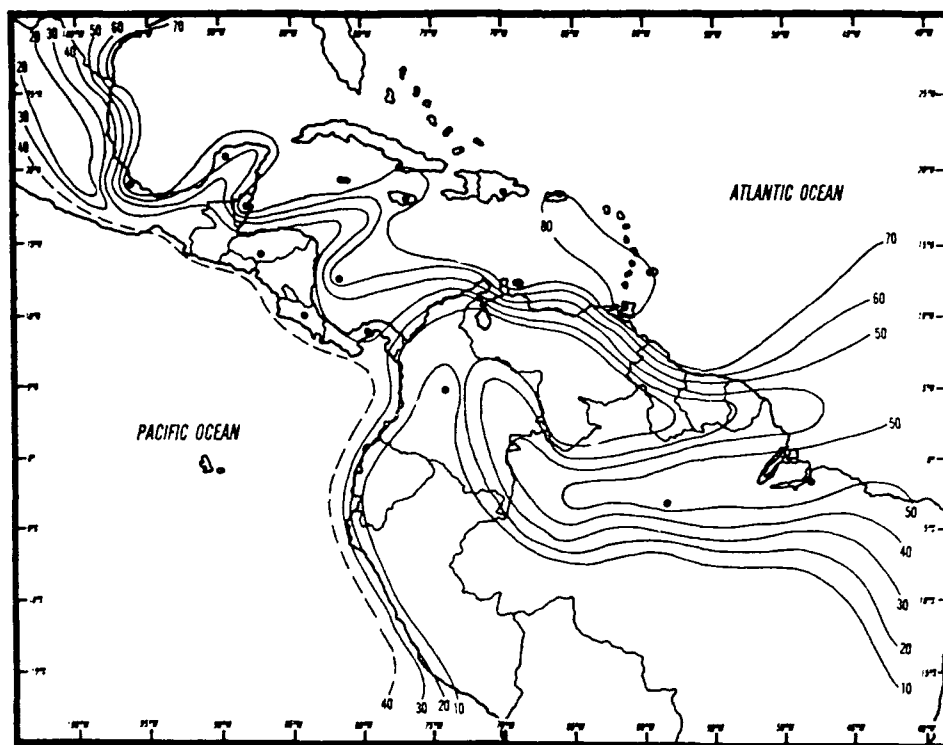


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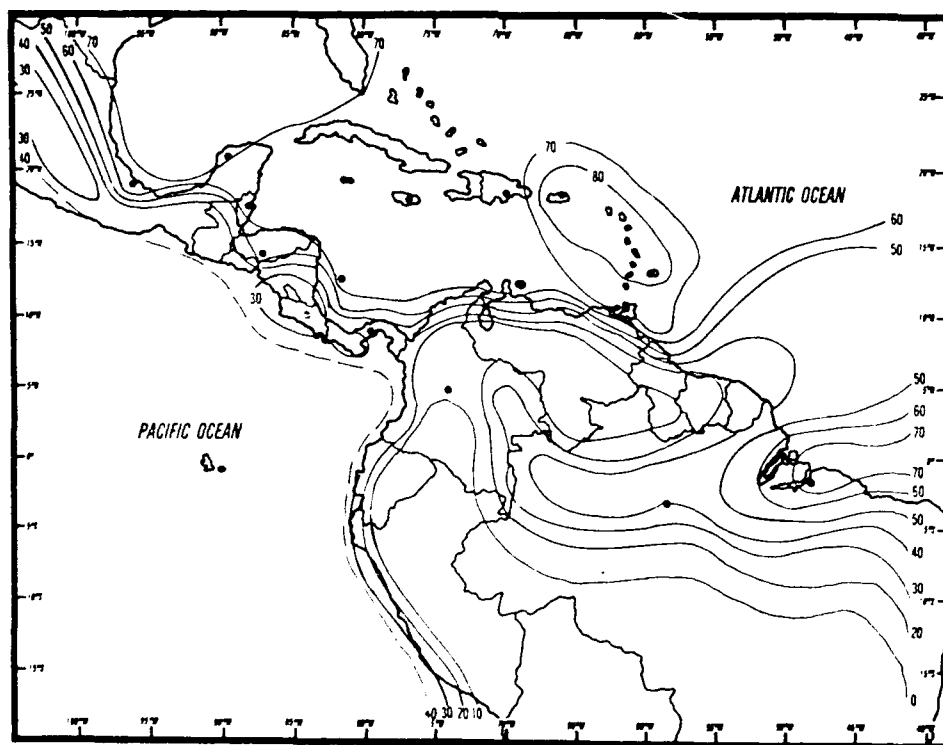
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WET SEASON

SUPERREFRACTION



0000Z

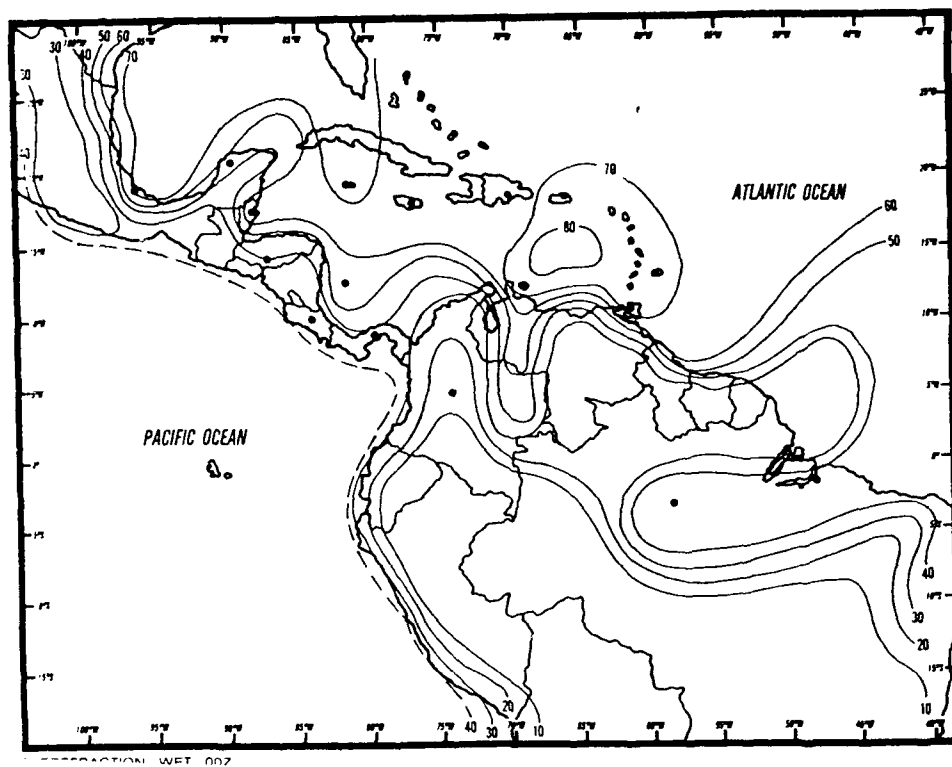


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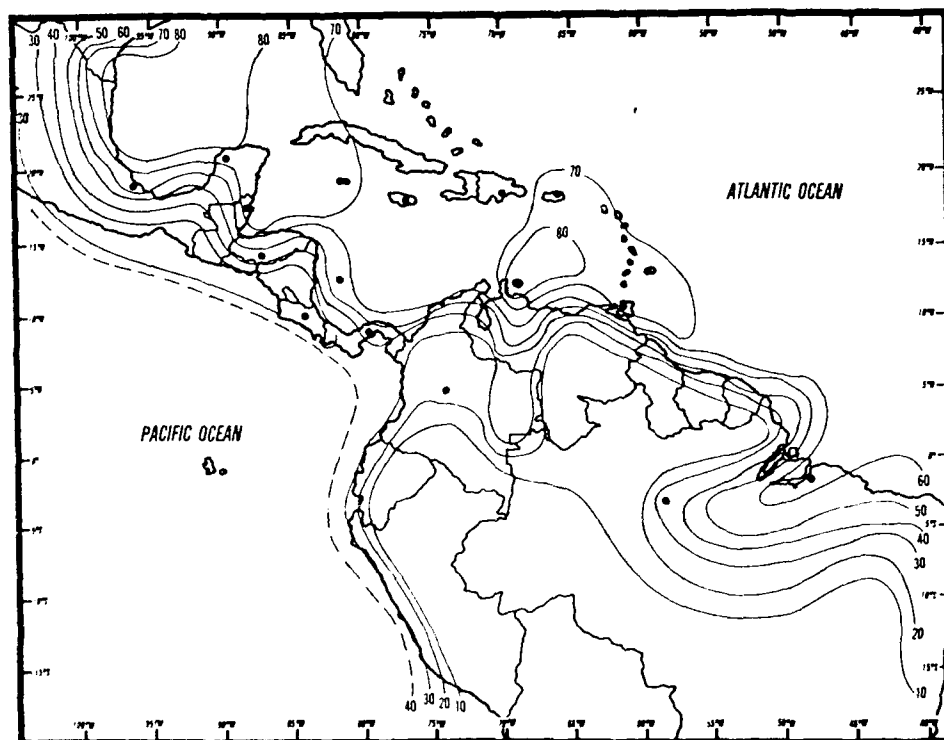
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WET SEASON

SUBREFRACTION



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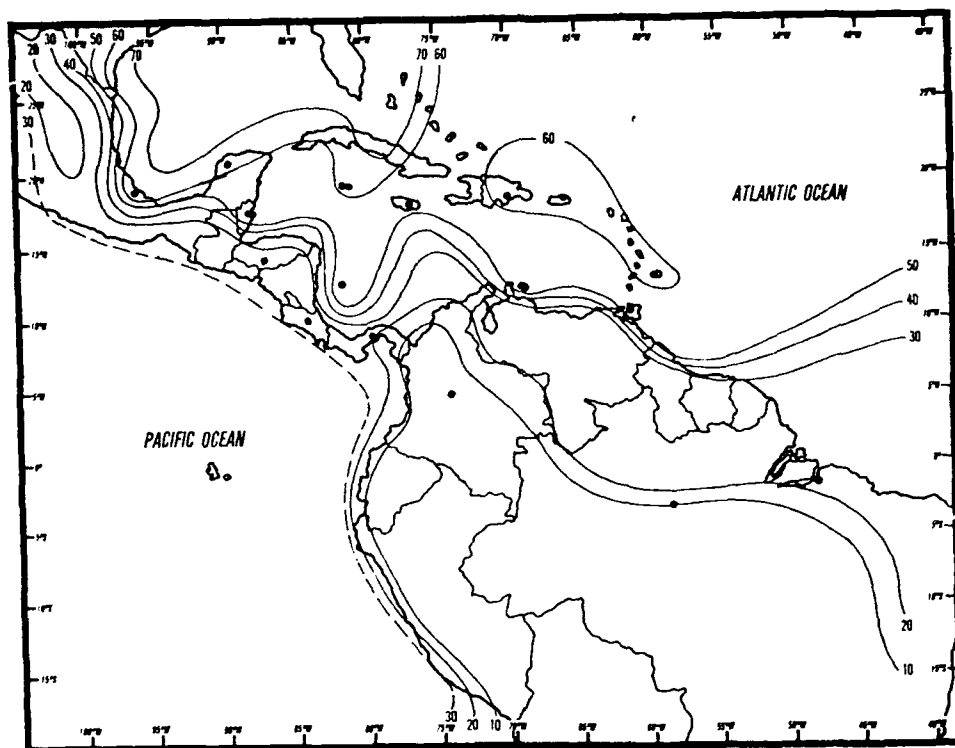


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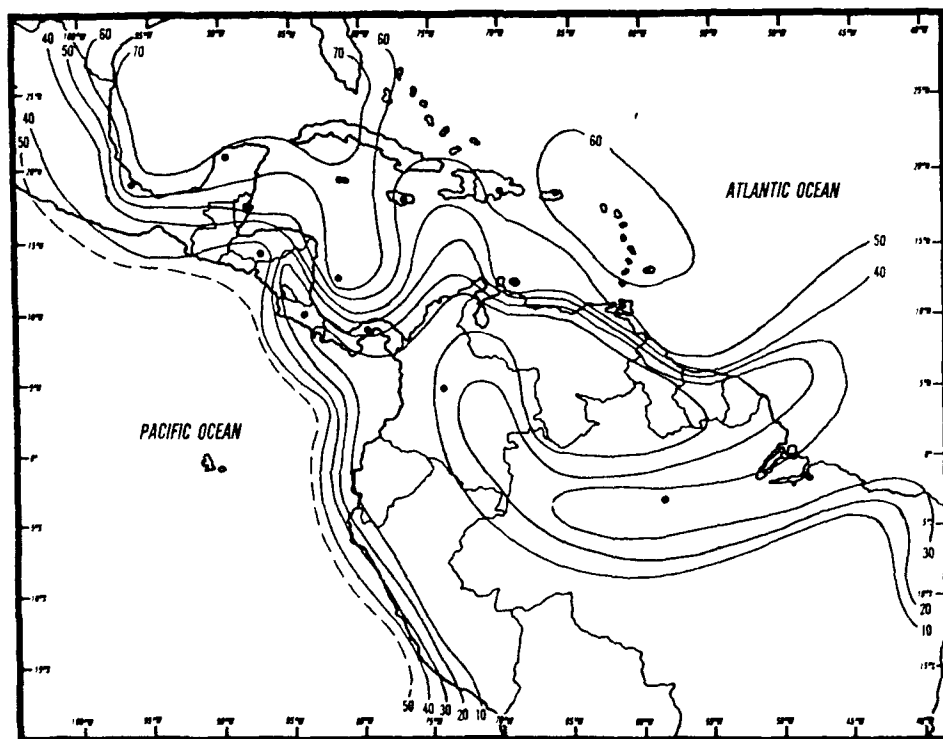
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WET-TO-DRY TRANSITION

DUCTING



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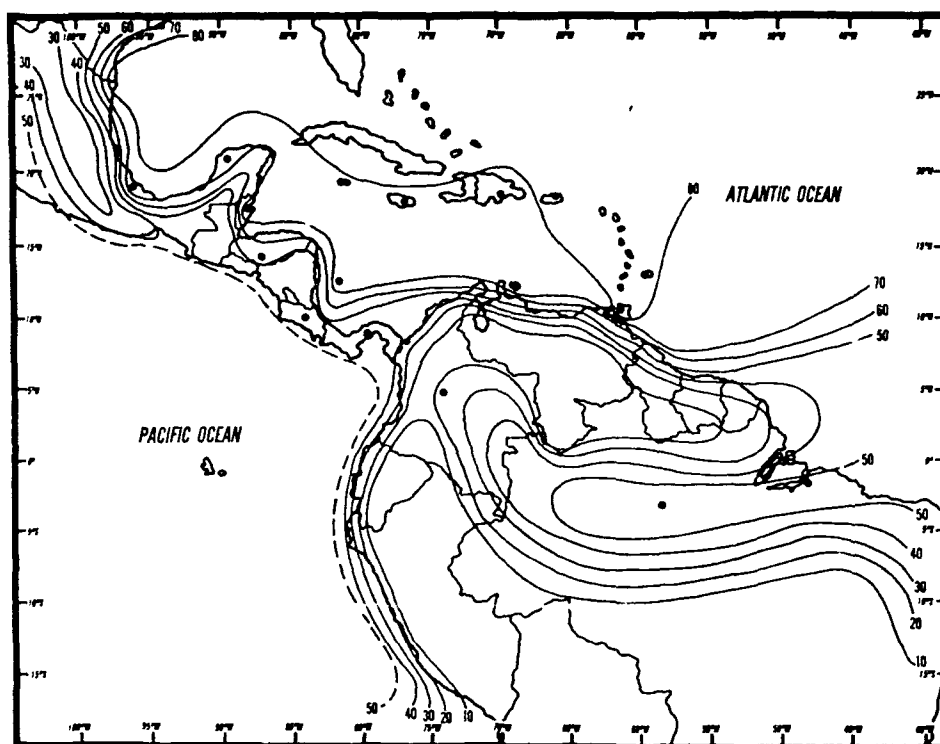


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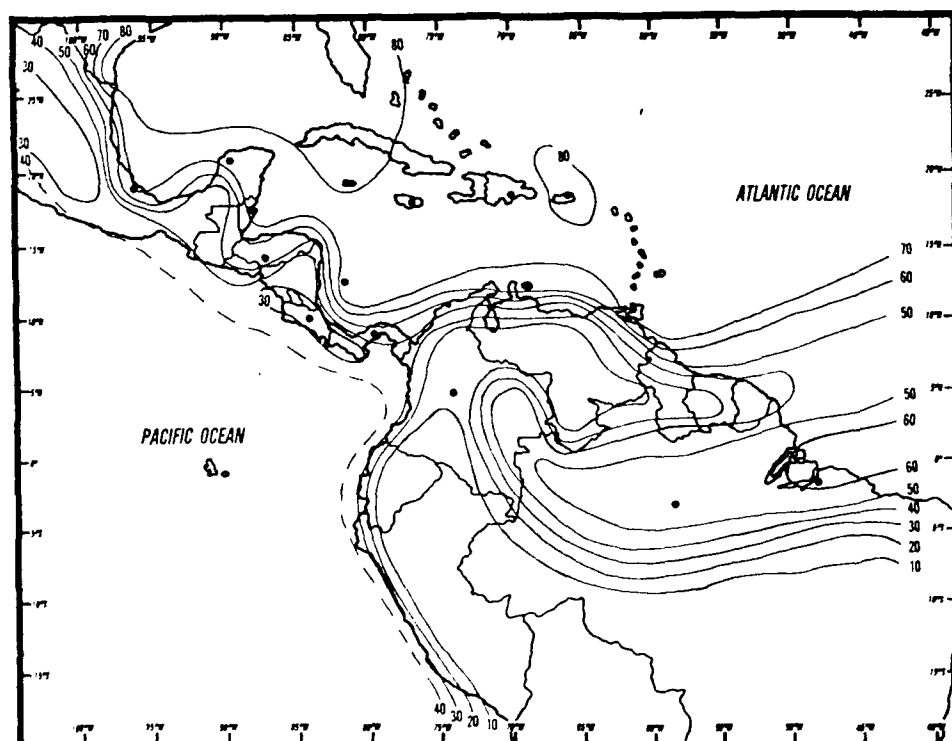
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WET-TO-DRY TRANSITION

SUPERREFRACTION



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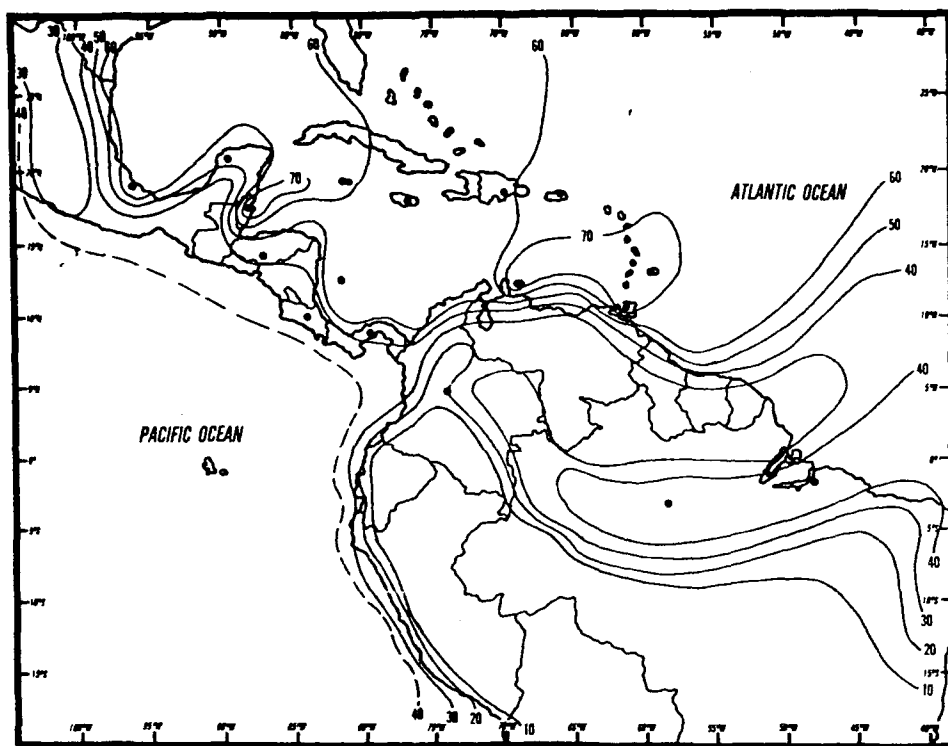


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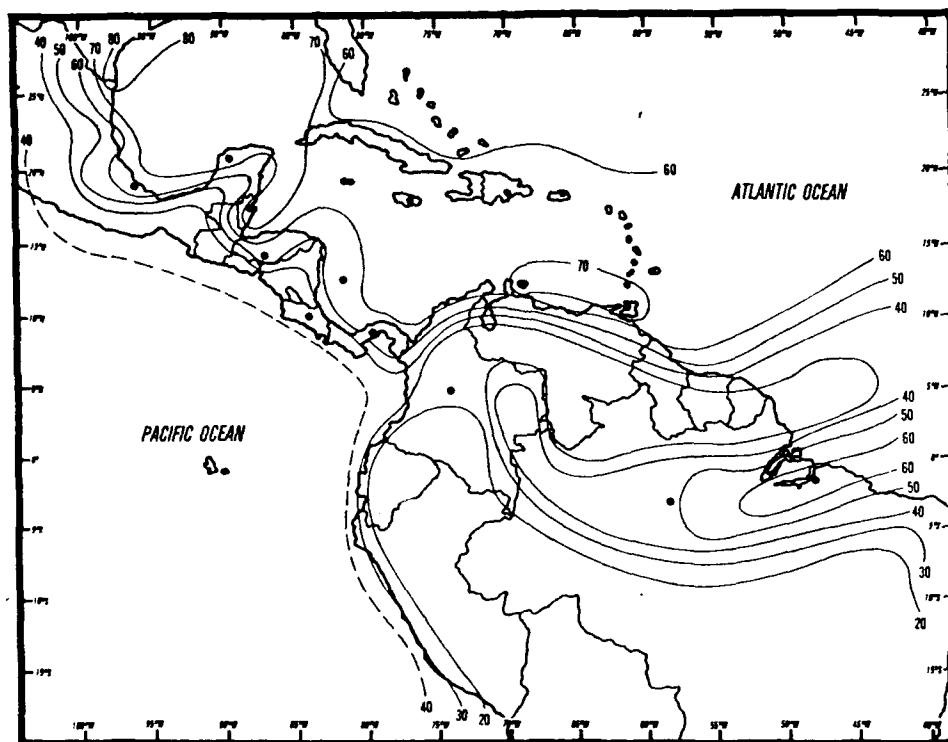
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WET-TO-DRY TRANSITION

SUBREFRACTION



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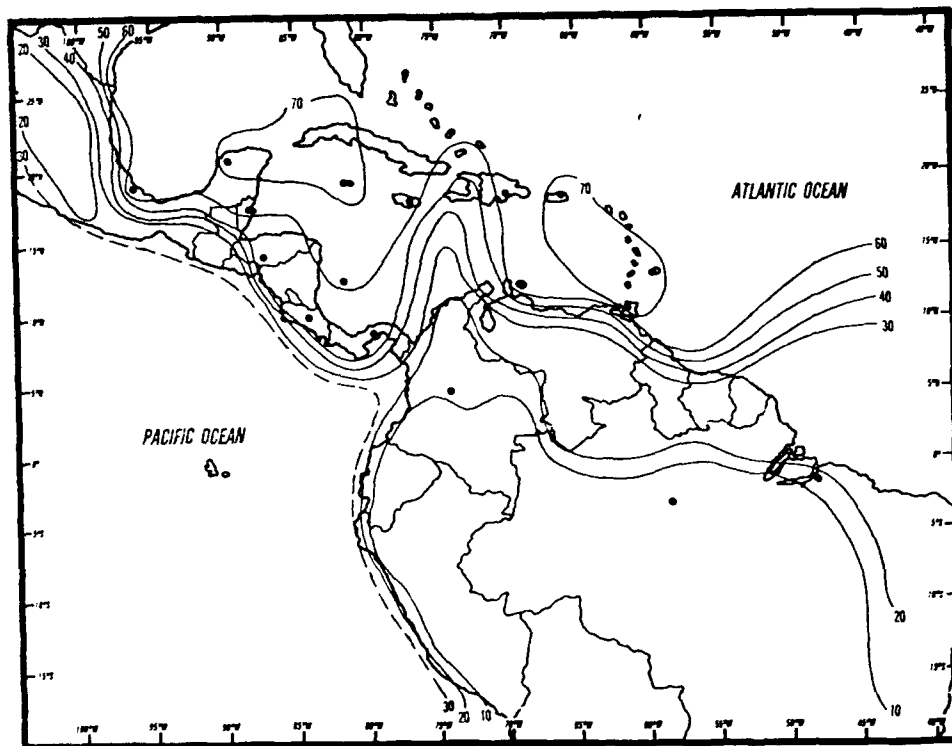


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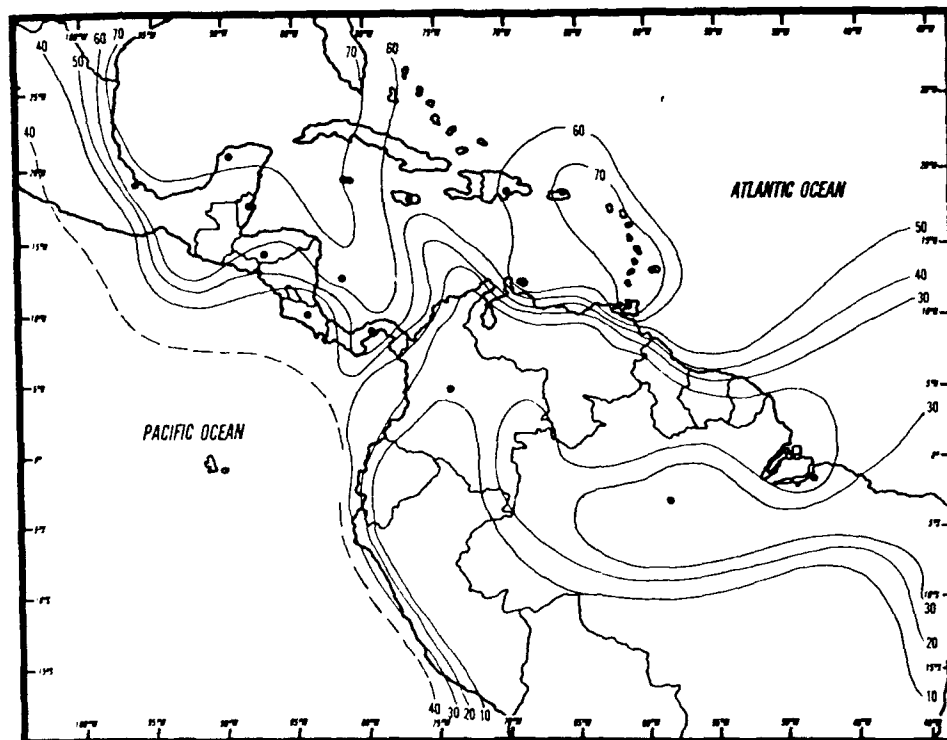
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DRY SEASON

DUCTING



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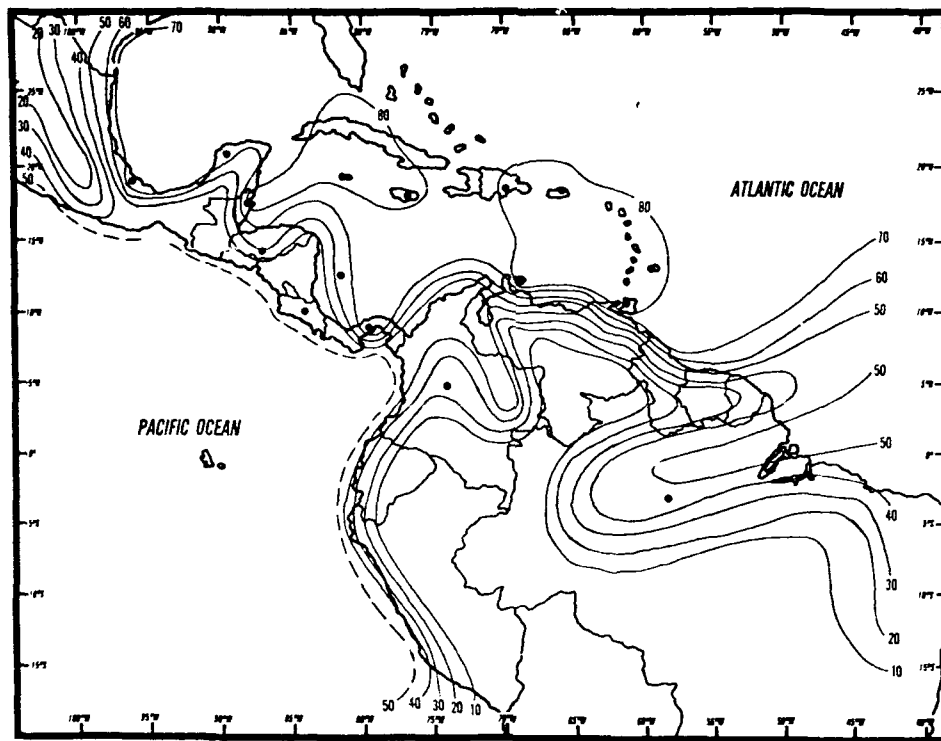


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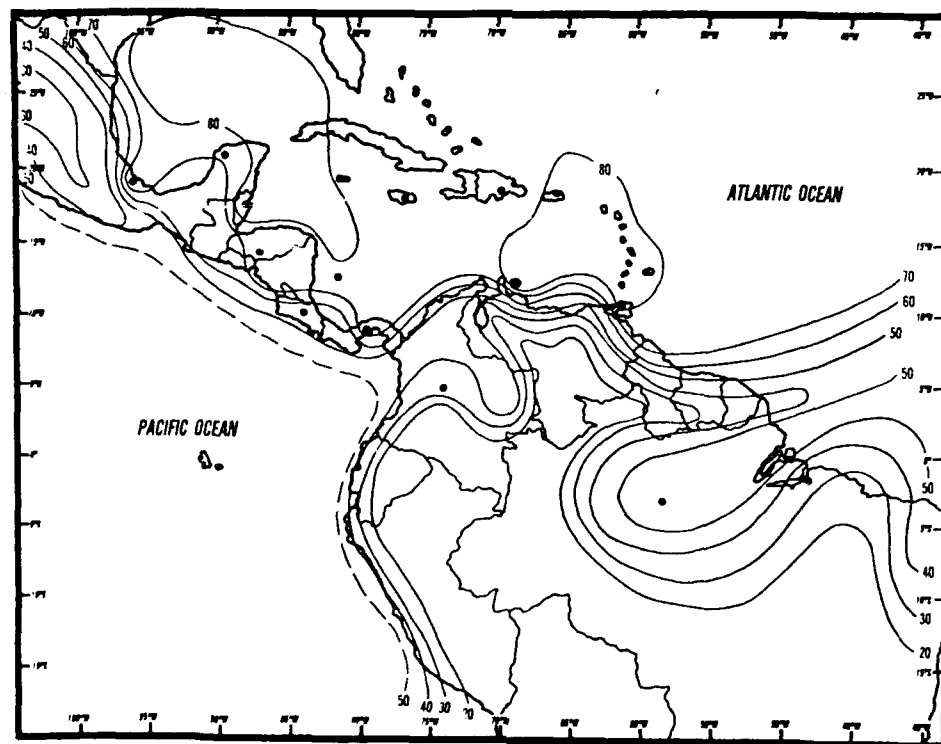
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DRY SEASON

SUPERREFRACTION



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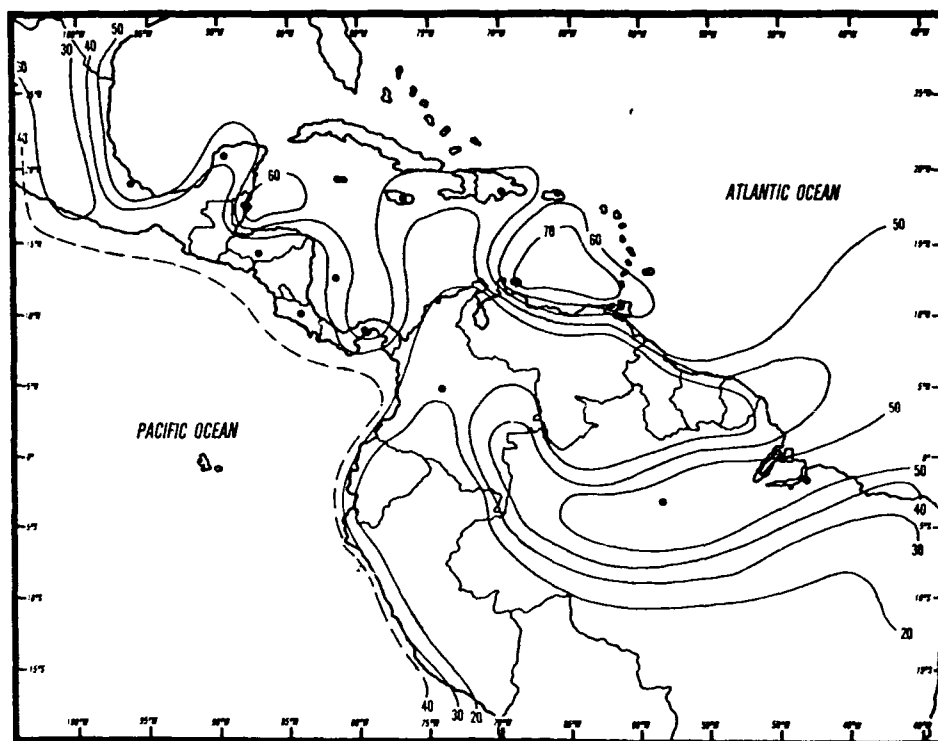


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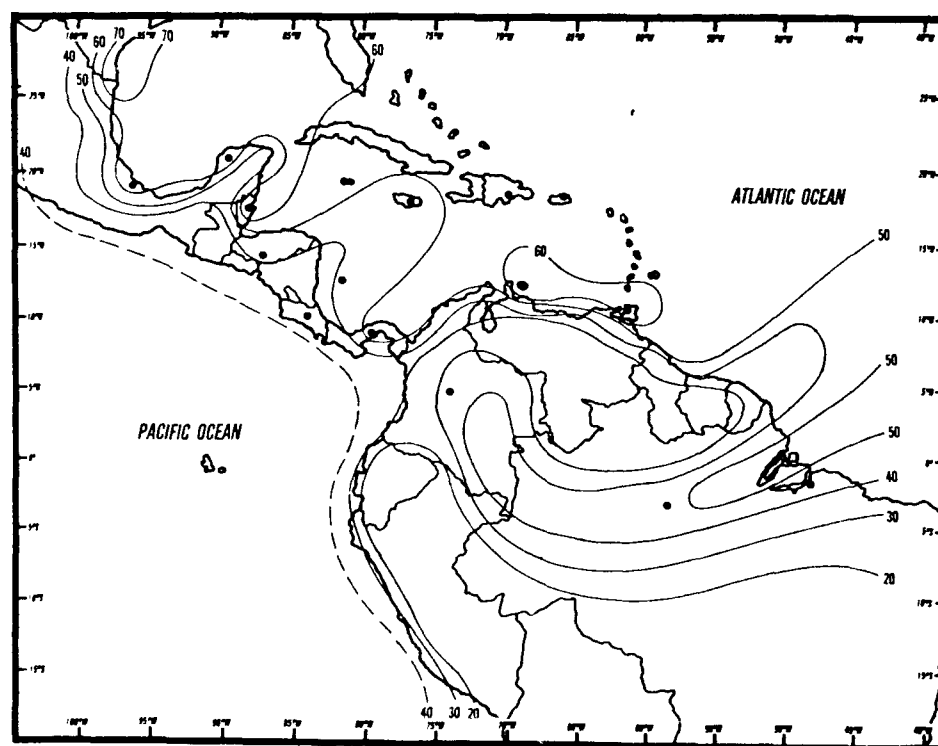
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DRY SEASON

SUBREFRACTION



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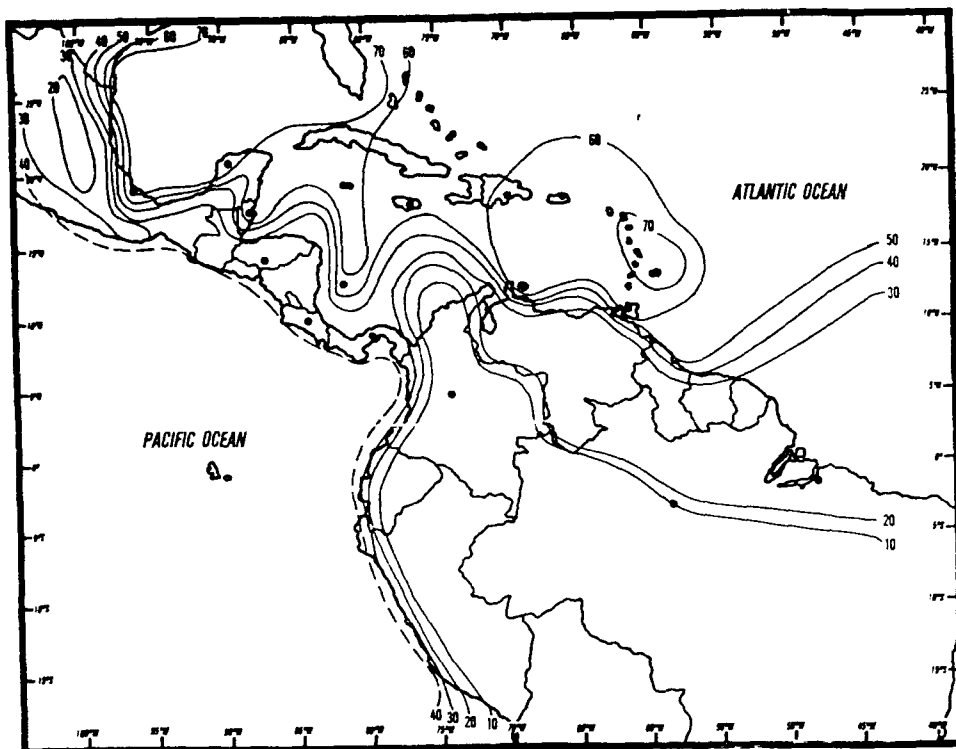


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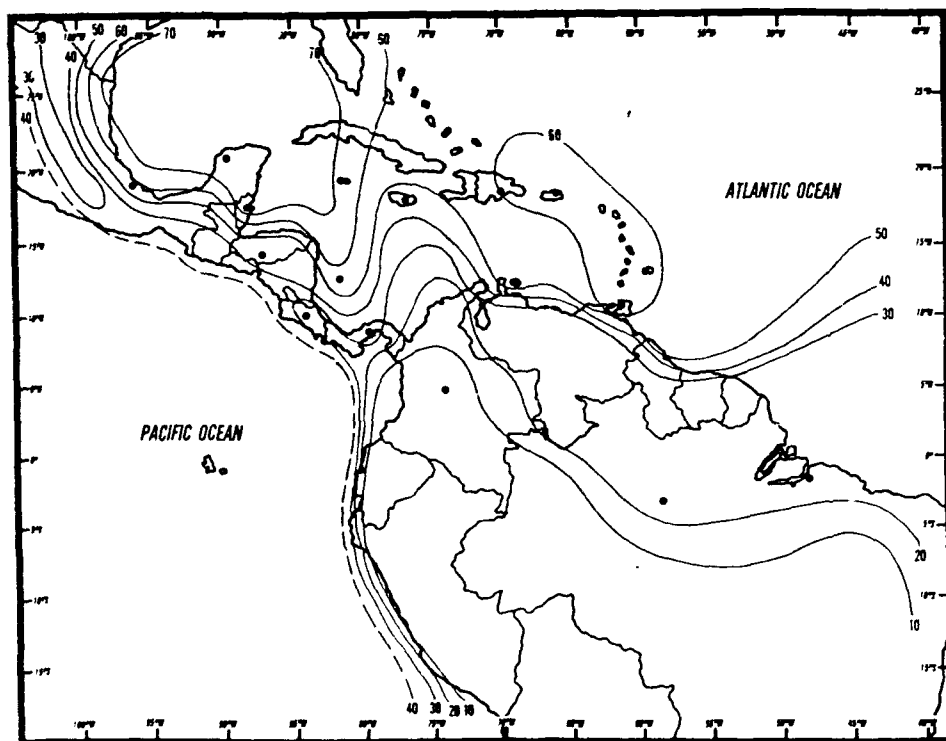
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DRY-TO-WET TRANSITION

DUCTING



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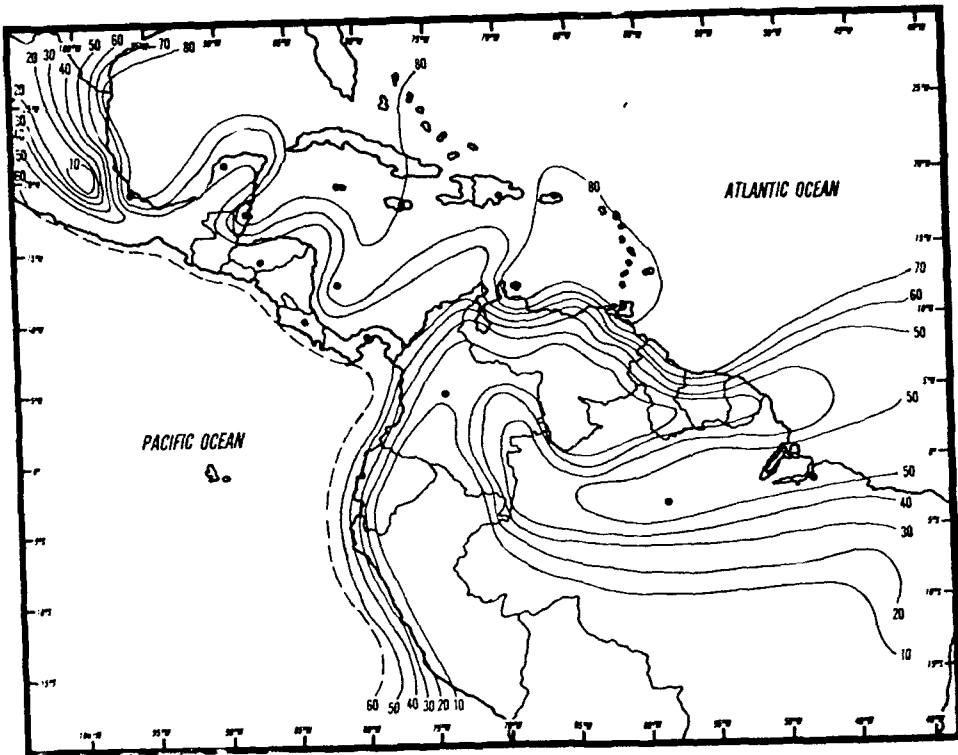


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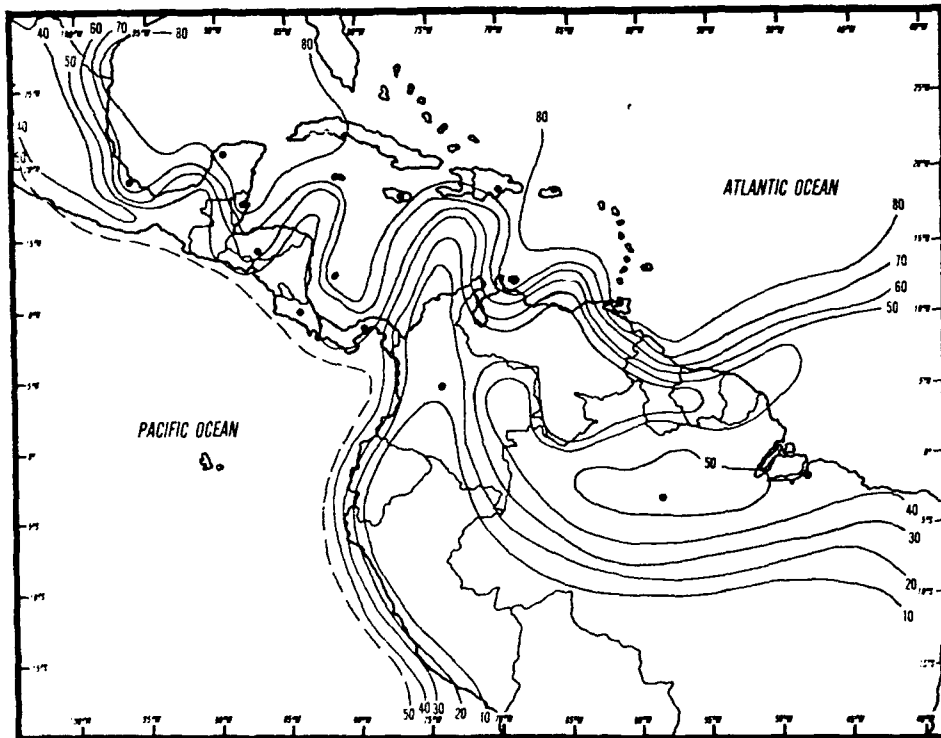
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DRY-TO-WET TRANSITION

SUPERREFRACTION



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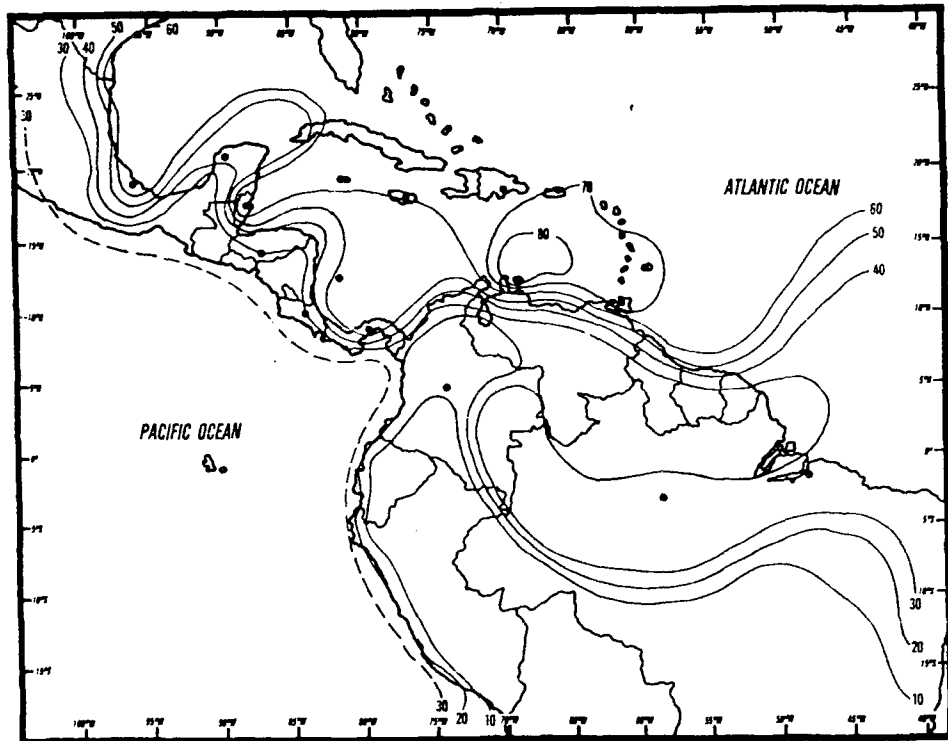


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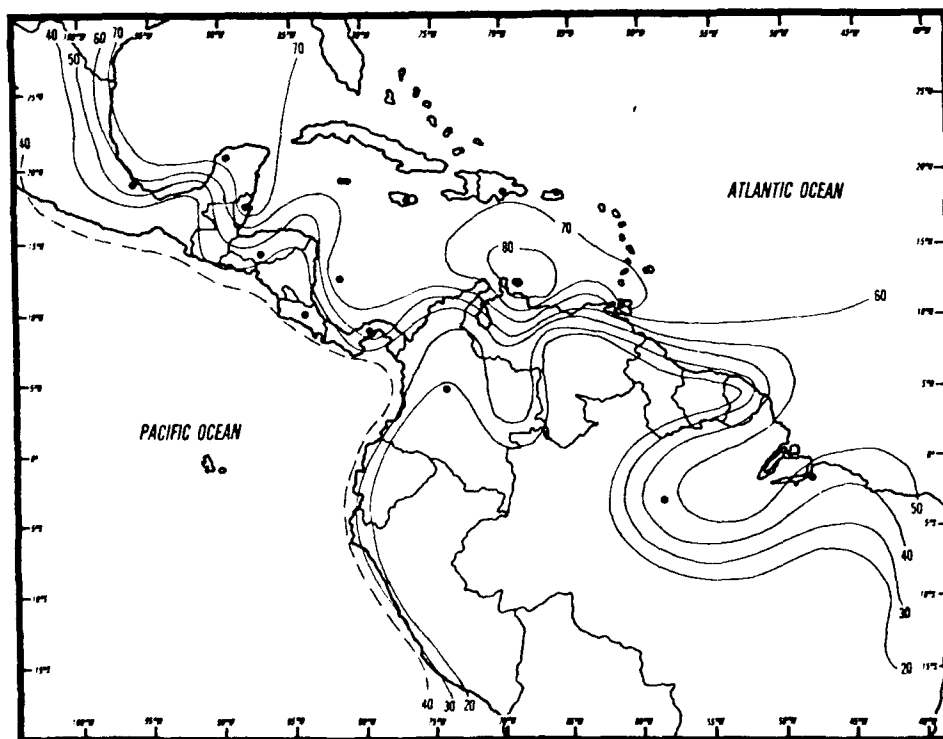
A-12

DRY-TO-WET TRANSITION

SUBREFRACTION



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1200Z

A-13

APPENDIX B

The graphics in Appendix B are grouped by station, by season, and by data type. See Chapter 3 for detailed descriptions of the individual figures and their contents.

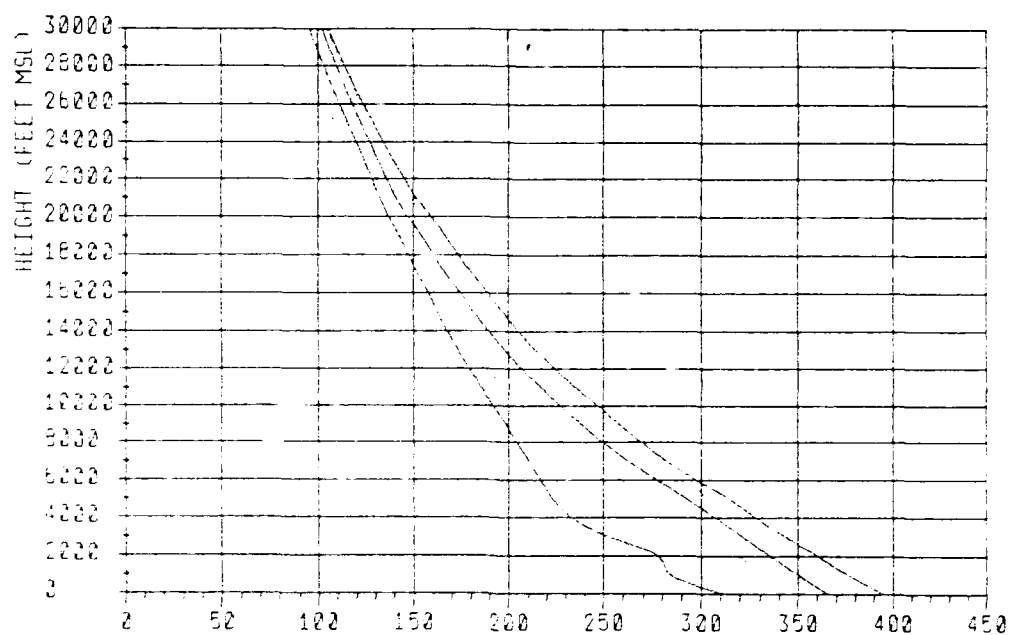
<u>Station</u>	<u>Season</u>	<u>Figure</u>	<u>Pages</u>
Merida, MX	Wet Season	B-1-1	3-6
	Wet-Dry Transition	B-1-2	7-10
	Dry Season	B-1-3	11-14
	Dry-Wet Transition	B-1-4	15-18
	Monthly AP POFs	B-1-5	19
Veracruz, MX	Wet Season	B-2-1	20-23
	Wet-Dry Transition	B-2-2	24-27
	Dry Season	B-2-3	28-31
	Dry-Wet Transition	B-2-4	32-35
	Monthly AP POFs	B-2-5	36
Owen Roberts, GC	Wet Season	B-3-1	37-40
	Wet-Dry Transition	B-3-2	41-44
	Dry Season	B-3-3	45-48
	Dry-Wet Transition	B-3-4	49-52
	Monthly AP POFs	B-3-5	53
Norman Manley, JM	Wet Season	B-4-1	54-57
	Wet-Dry Transition	B-4-2	58-61
	Dry Season	B-4-3	62-65
	Dry-Wet Transition	B-4-4	66-69
	Monthly AP POFs	B-4-5	70
Santo Domingo, DR	Wet Season	B-5-1	71-74
	Wet-Dry Transition	B-5-2	75-78
	Dry Season	B-5-3	79-82
	Dry-Wet Transition	B-5-4	83-86
	Monthly AP POFs	B-5-5	87
San Juan, PU	Wet Season	B-6-1	88-91
	Wet-Dry Transition	B-6-2	92-95
	Dry Season	B-6-3	96-99
	Dry-Wet Transition	B-6-4	100-103
	Monthly AP POFs	B-6-5	104
Belize, BH	Wet Season	B-7-1	105-108
	Wet-Dry Transition	B-7-2	109-112
	Dry Season	B-7-3	113-116
	Dry-Wet Transition	B-7-4	117-120
	Monthly AP POFs	B-7-5	121
Tegucigalpa, HO	Wet Season	B-8-1	122-125
	Wet-Dry Transition	B-8-2	126-129
	Dry Season	B-8-3	130-133
	Dry-Wet Transition	B-8-4	134-137
	Monthly AP POFs	B-8-5	138

San Jose, CS	Wet Season	B-9-1	139-142
	Wet-Dry Transition	B-9-2	143-146
	Dry Season	B-9-3	147-150
	Dry-Wet Transition	B-9-4	151-154
	Monthly AP POFs	B-9-5	155
Howard, PM	Wet Season	B-10-1	156-159
	Wet-Dry Transition	B-10-2	160-163
	Dry Season	B-10-3	164-167
	Dry-Wet Transition	B-10-4	168-171
	Monthly AP POFs	B-10-5	172
Grantley Adams, BR	Wet Season	B-11-1	173-176
	Wet-Dry Transition	B-11-2	177-180
	Dry Season	B-11-3	181-184
	Dry-Wet Transition	B-11-4	185-188
	Monthly AP POFs	B-11-5	189
Piarco, TD	Wet Season	B-12-1	190-193
	Wet-Dry Transition	B-12-2	194-197
	Dry Season	B-12-3	198-201
	Dry-Wet Transition	B-12-4	202-205
	Monthly AP POFs	B-12-5	206
Hato/Curaco, NU	Wet Season	B-13-1	207-210
	Wet-Dry Transition	B-13-2	211-214
	Dry Season	B-13-3	215-218
	Dry-Wet Transition	B-13-4	219-222
	Monthly AP POFs	B-13-5	223
San Andres Is., CO	Wet Season	B-14-1	223-227
	Wet-Dry Transition	B-14-2	228-231
	Dry Season	B-14-3	232-235
	Dry-Wet Transition	B-14-4	236-239
	Monthly AP POFs	B-14-5	240
Bogota, CO	Wet Season	B-15-1	241-244
	Dry Season	B-15-3	245-248
	Monthly AP POFs	B-15-5	249
Belem, BZ	Wet Season	B-16-1	250-253
	Wet-Dry Transition	B-16-2	254-257
	Dry Season	B-16-3	258-261
	Dry-Wet Transition	B-16-4	262-265
	Monthly AP POFs	B-16-5	266
Manaus, BZ	Wet Season	B-17-1	267-270
	Wet-Dry Transition	B-17-2	271-274
	Dry Season	B-17-3	275-278
	Dry-Wet Transition	B-17-4	279-282
	Monthly AP POFs	B-17-5	283

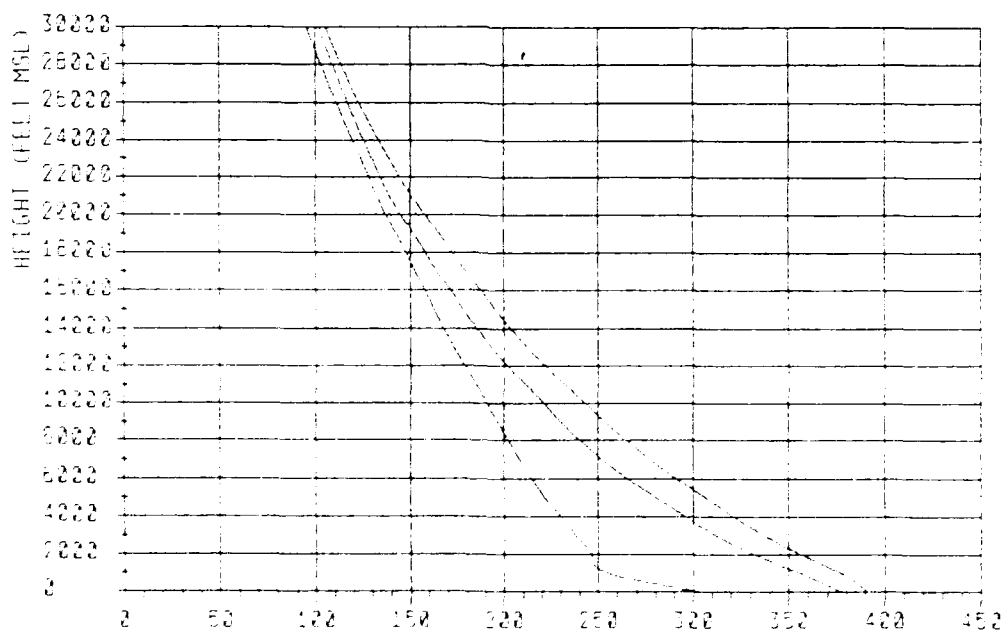
MERIDA

WET SEASON

N PERCENTILES



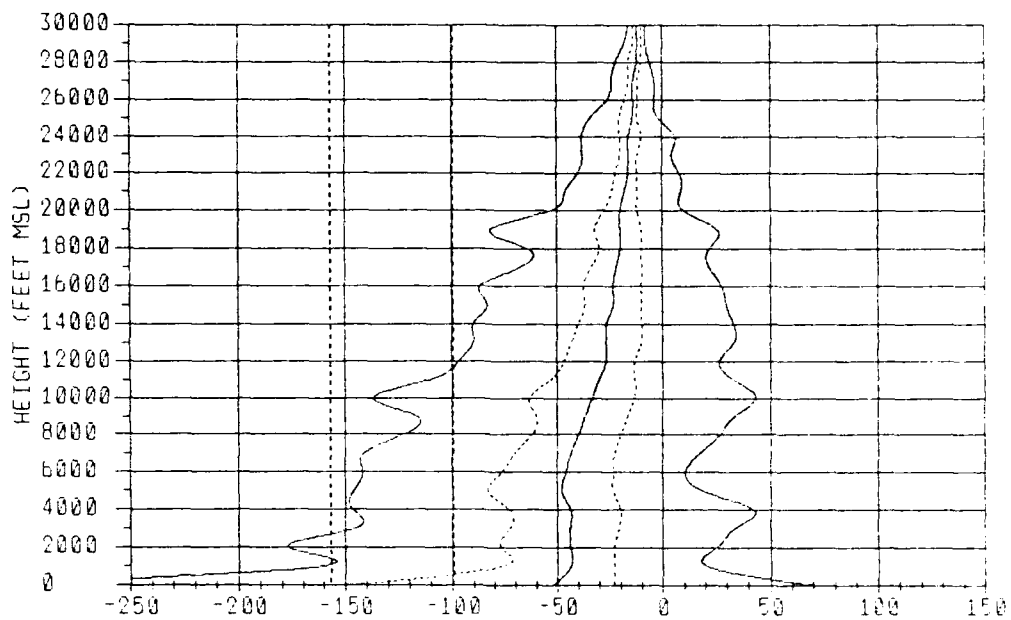
N (N-Units) 0000Z



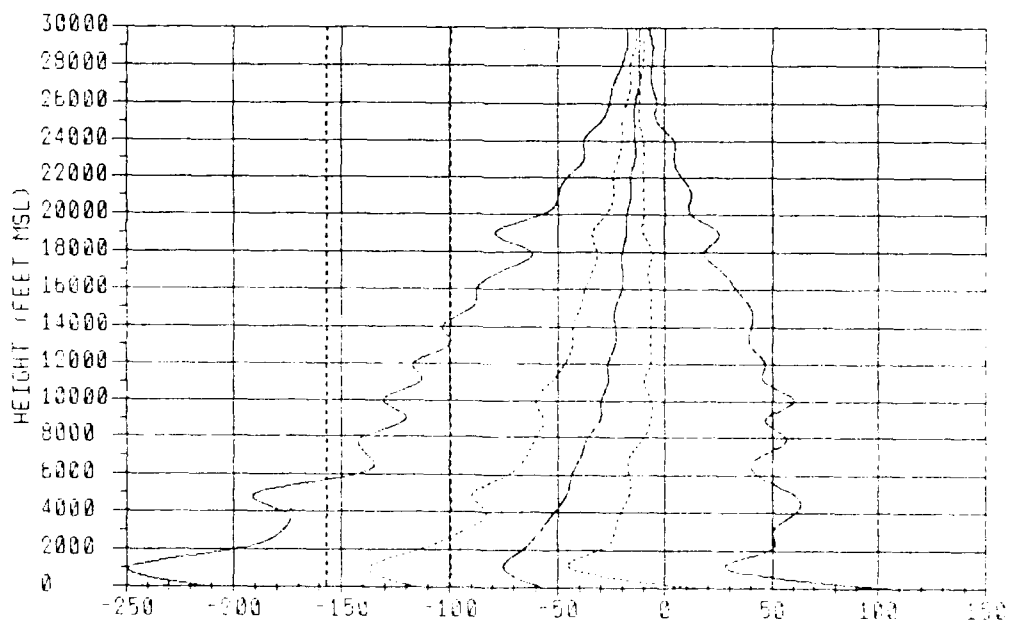
N (N-Units) 1200Z

FIGURE B-1-1-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-1-1-B

MERIDA

WET SEASON

HOT FT MSL	1%	W PERCENTILES				1%	DNDR PERCENTILES				PERCENT OCCURRENCE		
		10%	50%	90%	95%		10%	50%	90%	95%	DUCT	SLR	SUB
500-1000	324.88	384.58	373.25	387.38	388.72	-410.37	-200.00	-72.81	-20.83	180.82	33.3	39.7	10.8
1000-1500	304.58	344.75	361.88	378.88	380.20	-183.33	-83.33	-48.83	-20.83	33.44	2.8	8.8	3.8
1500-2000	281.83	337.75	354.28	368.19	381.28	-182.50	-78.18	-43.78	-20.83	20.83	2.0	8.2	2.8
2000-2500	287.58	330.87	347.28	360.78	371.88	-188.88	-77.08	-43.78	-22.81	28.00	2.8	7.0	2.8
2500-3000	288.87	323.80	340.00	353.18	363.08	-188.50	-78.18	-43.78	-22.81	28.00	3.1	6.8	2.8
3000-3500	272.17	318.00	332.08	344.80	354.31	-173.81	-78.18	-43.78	-22.81	30.17	3.2	6.3	4.1
3500-4000	288.88	307.21	324.18	338.19	348.00	-180.00	-77.08	-43.78	-20.83	28.12	1.8	8.3	3.8
4000-4500	248.71	301.00	317.28	329.00	338.00	-131.25	-70.83	-43.78	-20.83	41.88	1.3	5.7	4.8
4500-5000	234.00	284.37	310.50	321.88	329.00	-133.33	-72.81	-43.78	-20.78	48.83	1.3	4.8	4.8
5000-5500	229.39	287.50	303.88	314.88	322.07	-188.33	-77.08	-43.78	-20.83	39.88	2.8	8.1	4.8
5500-6000	222.30	273.88	281.08	303.88	313.08	-147.81	-81.25	-47.81	-28.00	18.88	2.8	8.7	3.7
6000-7000	218.80	288.88	278.08	287.78	288.78	-138.88	-78.00	-48.83	-23.30	10.42	2.8	7.8	3.7
7000-8000	210.00	240.48	282.00	274.19	281.84	-138.72	-70.08	-43.88	-22.81	18.88	2.2	7.2	4.7
8000-9000	203.23	228.80	248.40	281.08	288.80	-120.08	-80.02	-38.88	-19.82	28.88	1.8	8.7	7.3
9000-10000	188.83	218.10	238.20	248.30	285.80	-118.88	-88.77	-38.88	-18.88	33.33	1.4	4.4	7.2
10000-11000	180.17	208.80	228.30	237.00	244.80	-130.07	-80.02	-33.33	-13.28	38.71	3.3	8.8	11.8
11000-12000	183.80	198.70	214.80	228.00	232.48	-110.02	-80.00	-28.88	-13.28	33.33	2.2	3.8	8.8
12000-13000	177.70	188.10	204.80	218.80	221.80	-93.23	-48.81	-28.88	-13.28	28.88	1.4	2.8	8.8
13000-14000	171.80	178.70	195.80	207.00	212.20	-88.87	-40.10	-28.88	-10.03	33.33	1.4	2.8	8.7
14000-15000	168.30	171.60	187.20	198.30	202.80	-88.18	-38.87	-23.44	-10.03	33.33	1.3	2.2	8.4
15000-16000	161.20	168.80	178.80	190.30	194.70	-88.71	-38.71	-23.30	-10.03	30.07	1.1	2.4	8.9
16000-17000	158.00	158.80	172.80	182.80	187.10	-88.88	-38.88	-22.88	-11.88	21.88	0.8	1.7	8.4
17000-18000	150.80	154.10	168.10	174.70	178.80	-88.88	-32.03	-21.88	-10.00	20.43	0.7	0.7	7.8
18000-19000	148.30	148.30	158.40	167.30	171.10	-78.01	-30.00	-20.00	-10.00	24.08	2.4	1.8	11.3
19000-20000	140.40	142.80	151.30	159.70	163.11	-88.20	-30.00	-20.00	-12.03	18.01	0.3	0.7	8.8
20000-21000	138.70	138.20	148.10	153.10	158.20	-83.88	-28.01	-18.04	-12.03	7.97	0.1	0.4	8.0
21000-22000	131.20	133.80	138.80	148.70	149.80	-43.88	-23.88	-17.88	-11.88	8.08	0.1	0.1	8.4
22000-23000	128.80	128.30	134.80	140.70	143.80	-38.01	-21.88	-18.01	-11.88	8.02	0.2	0.3	4.8
23000-24000	121.80	124.80	128.80	134.80	137.80	-38.01	-20.00	-18.01	-11.88	2.48	0.1	0.0	4.4
24000-25000	118.80	120.20	124.80	128.10	131.40	-40.00	-20.00	-14.08	-11.88	3.88	0.3	0.4	4.2
25000-26000	112.82	118.30	119.80	123.80	128.00	-27.88	-18.04	-13.88	-11.88	-2.03	0.1	0.1	1.8
26000-27000	108.70	112.40	118.80	119.10	120.80	-28.01	-18.01	-13.88	-11.88	-3.88	0.0	0.1	1.3
27000-28000	104.30	108.30	111.10	114.30	118.10	-22.03	-18.01	-13.88	-11.88	-8.88	0.0	0.0	1.8
28000-29000	100.30	104.80	107.00	108.80	110.80	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	1.1
29000-30000	98.88	101.20	103.30	108.80	108.70	-17.88	-13.88	-12.03	-10.00	-7.97	0.0	0.0	0.8
30000-31000	83.18	88.00	88.80	101.70	102.84	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.2
31000-32000	88.70	84.80	88.30	98.20	98.20	-30.00	-12.03	-11.88	-10.00	-8.02	0.0	0.0	0.8
32000-33000	88.30	81.10	82.80	84.80	85.80	-13.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
33000-34000	82.80	87.80	88.30	90.80	91.80	-28.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
34000-35000	80.20	85.80	88.70	87.70	88.40	-27.88	-11.88	-10.00	-7.87	-7.87	0.0	0.0	0.1

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HGT FT MSL	1%	W PERCENTILES				1%	DNDR PERCENTILES				PERCENT OCCURRENCE		
		10%	50%	90%	95%		10%	50%	90%	95%	DUCT	SLR	SUB
500-1000	349.81	372.00	381.19	388.19	393.19	-222.81	-108.28	-41.88	41.88	131.88	8.8	21.8	41.1
1000-1500	281.88	381.88	373.88	382.08	387.78	-214.88	-120.83	-84.88	-12.50	82.80	7.0	22.7	14.3
1500-2000	288.41	347.08	362.78	372.78	378.78	-248.10	-137.50	-78.00	-41.88	18.88	10.4	28.2	2.2
2000-2500	281.88	331.88	350.38	361.88	368.07	-243.78	-133.33	-72.81	-43.78	28.27	10.1	28.3	3.8
2500-3000	248.25	318.88	338.88	351.28	358.88	-208.70	-118.88	-70.83	-38.41	84.18	8.8	20.1	8.4
3000-3500	243.24	308.38	328.88	340.88	348.18	-193.75	-108.28	-84.88	-27.08	47.12	8.0	18.8	8.1
3500-4000	238.80	288.88	318.08	330.19	338.78	-178.18	-98.83	-80.41	-23.44	80.00	3.1	11.3	8.9
4000-4500	238.20	288.74	307.25	321.88	330.88	-180.43	-87.50	-88.28	-22.81	80.00	2.7	8.4	8.8
4500-5000	231.79	277.00	298.80	313.28	322.78	-188.88	-83.33	-83.28	-20.83	41.88	2.8	8.9	7.8
5000-5500	228.20	288.88	292.00	308.88	318.80	-183.78	-83.33	-80.00	-18.78	88.78	4.8	8.8	8.8
5500-6000	221.34	283.10	278.80	284.78	308.78	-188.41	-87.50	-48.83	-18.88	80.41	8.7	12.2	10.1
6000-7000	214.80	237.20	284.25	288.88	288.88	-137.50	-72.81	-43.88	-18.88	43.28	2.1	7.7	8.0
7000-8000	208.10	228.70	281.70	287.50	277.28	-138.41	-83.41	-38.88	-18.88	43.38	2.8	8.4	10.8
8000-9000	201.88	218.20	238.20	284.80	284.08	-138.88	-80.02	-33.33	-10.03	83.28	3.0	7.8	12.8
9000-10000	198.30	208.20	228.80	242.80	281.10	-118.88	-88.84	-30.07	-8.84	80.00	1.8	4.7	14.0
10000-11000	188.80	197.80	218.40	232.40	241.00	-130.07	-80.02	-28.88	-8.84	88.84	3.4	8.8	18.8
11000-12000	183.40	190.40	208.10	222.20	230.00	-113.28	-80.00	-28.88	-8.80	43.38	2.8	4.7	13.8
12000-13000	177.70	183.20	200.10	212.80	218.48	-113.28	-48.81	-28.88	-8.84	48.74	2.3	4.4	13.8
13000-14000	171.80	178.30	191.80	204.30	210.40	-100.00	-43.38	-23.30	-8.84	38.87	1.8	3.8	14.8
14000-15000	168.30	170.10	183.20	198.70	201.10	-98.81	-43.38	-23.30	-8.84	40.10	1.8	3.8	14.8
15000-16000	161.20	164.40	175.80	187.80	182.80	-88.87	-38.87	-23.30	-8.84	43.38	1.1	3.2	14.1
16000-17000	158.20	158.10	168.40	180.80	185.40	-82.52	-38.88	-21.88	-7.87	31.88	1.0	2.8	12.8
17000-18000	151.10	153.80	162.40	172.80	177.10	-70.00	-33.88	-20.00	-7.87	23.88	0.4	1.0	10.8
18000-19000	145.80	147.80	158.10	168.80	168.80	-78.01	-32.03	-18.04	-8.02	23.88	2.2	1.7	14.3
19000-20000	140.80	142.80	148.00	157.80	162.00	-88.04	-32.03	-17.88	-11.88	13.88	0.3	0.8	8.7
20000-21000	138.82	137.80	143.80	151.40	158.20	-88.80	-28.01	-18.01	-10.00	10.00	0.3	0.7	8.8
21000-22000	131.30	133.30	137.80	148.18	148.70	-47.88	-23.88	-18.01	-10.00	10.00	0.1	0.4	8.8
22000-23000	128.80	128.00	132.80	138.40	142.80	-43.88	-22.03	-18.84	-10.00	8.02	0.1	0.1	8.2
23000-24000	122.00	124.20	128.00	133.40	138.70	-38.01	-20.00	-14.08	-10.00	2.03	0.1	0.1	4.8
24000-25000	117.30	120.00	123.20	127.80	130.80	-33.88	-20.00	-13.88	-10.00	3.88	0.1	0.2	4.9
25000-26000	113.08	118.10	118.80	122.80	125.30	-27.88	-18.04	-13.88	-11.88	-2.03	0.0	0.1	1.7
26000-27000	108.88	112.30	114.80	118.10	120.40	-25.87	-18.01	-13.88	-11.88	-3.88	0.0	0.2	1.4
27000-28000	104.80	108.10	110.80	113.80	115.70	-22.03	-18.01	-12.03	-10.00	-8.02	0.0	0.0	1.0
28000-29000	100.40	104.80	108.80	108.80	110.70	-18.04	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.8
29000-30000	98.70	101.10	102.80	108.00	108.80	-17.88	-13.88	-11.88	-10.00	-7.97	0.0	0.0	0.2
30000-31000	93.20	97.80	98.80	101.30	102.70	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.2
31000-32000	88.80	94.80	98.20	97.80	99.08	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
32000-33000	88.20	81.00	82.80	84.30	85.40	-14.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
33000-34000	82.80	87.80	88.20	90.80	91.80	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	80.04	85.80	88.70	87.80	88.10	-22.03	-10.00	-10.00	-7.87	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
500-800	33.3	181	258	358	39.7	98	258	458	88.8	908	7874	34878	10.8	181	358	688
800-1000	0.7	98	258	482	2.4	98	258	848	5.4	98	8348	34883	0.7	98	187	1478
1000-1500	1.1	258	482	830	3.8	98	591	1083	4.1	98	8288	34001	1.2	98	591	1791
1500-2000	1.9	258	394	888	4.0	98	541	984	3.4	98	3248	33488	1.0	187	837	1732
2000-2500	1.7	187	394	708	2.9	98	482	888	8.8	98	8387	33008	1.2	258	688	1732
2500-3000	2.1	98	258	688	4.0	98	394	984	5.7	98	5187	32307	2.3	98	935	2087
3000-3500	1.0	98	394	880	2.8	98	187	988	5.4	98	5414	31824	1.3	98	787	1782
3500-4000	0.7	98	258	787	2.4	98	482	984	2.9	98	8019	31431	2.1	98	984	1378
4000-4500	1.0	178	394	880	2.6	98	482	888	3.4	98	8004	30870	1.3	98	640	888
4500-5000	2.1	187	258	688	5.7	98	394	888	8.0	187	6387	30280	1.4	258	482	1280
5000-6000	2.0	98	258	888	8.7	98	394	888	12.3	384	6883	28758	2.8	98	541	1083
6000-7000	2.1	98	258	482	8.8	98	258	787	8.5	423	8288	28448	2.4	98	384	884
7000-8000	1.8	98	258	591	8.4	98	258	688	7.4	98	5807	27881	3.8	98	591	1478
8000-9000	1.4	98	258	482	4.4	98	258	591	8.8	98	3287	26838	4.8	98	482	1201
9000-10000	1.4	98	258	384	3.3	98	258	591	8.8	98	1828	25824	4.4	98	482	984
10000-11000	3.2	98	187	258	8.8	98	258	482	14.7	98	5413	24837	8.8	98	384	1181
11000-12000	2.1	98	187	258	1.2	98	258	482	10.3	98	3838	23888	8.8	98	482	1338
12000-13000	1.2	98	98	258	2.2	98	187	394	7.9	98	4282	22770	5.8	98	482	1181
13000-14000	1.3	98	98	258	2.2	98	187	394	7.9	98	3101	21887	8.1	98	591	1083
14000-15000	1.2	98	98	187	2.0	98	248	258	8.4	98	3448	20873	5.8	98	482	1112
15000-16000	1.0	98	98	187	2.3	98	187	258	8.1	98	3314	18248	7.8	98	427	1017
16000-17000	0.8	131	184	203	1.4	164	184	328	7.9	184	5807	18701	5.7	131	482	1148
17000-18000	0.7	184	184	184	0.7	184	184	312	8.5	428	4821	17717	5.1	184	482	1148
18000-19000	2.4	184	184	184	1.8	184	184	278	11.1	888	18812	16888	8.1	184	482	837
19000-20000	0.3	184	184	184	0.7	184	184	328	7.1	1840	18288	18748	4.2	184	482	984

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BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
500-800	8.8	82	258	688	21.8	98	358	1280	92.8	258	1834	34877	41.1	258	358	482
800-1000	3.4	98	482	787	13.8	98	591	1478	17.3	98	2481	20888	1.8	98	187	591
1000-1500	7.0	187	482	888	10.8	98	591	1417	9.5	98	3740	33784	1.0	148	482	1230
1500-2000	4.8	258	482	787	9.8	98	394	1181	12.8	98	4827	33302	2.8	258	688	1417
2000-2500	2.2	187	394	787	7.8	98	541	1280	12.8	98	3842	22888	2.7	258	591	1308
2500-3000	3.1	98	482	688	8.3	98	541	1083	12.4	98	2808	18882	3.1	258	591	1122
3000-3500	1.3	187	258	688	4.8	98	482	1053	8.8	98	1870	14812	2.8	258	591	1240
3500-4000	1.7	187	394	688	3.8	98	394	888	7.4	98	1772	13888	3.7	98	591	1181
4000-4500	1.3	177	482	728	3.7	98	482	787	7.0	98	2382	12284	3.9	238	591	848
4500-5000	3.8	98	248	591	8.8	98	187	688	9.0	98	5413	30280	5.1	187	443	1171
5000-6000	4.3	187	258	591	10.0	98	394	787	21.4	98	4821	28288	6.3	187	591	1280
6000-7000	1.8	148	394	591	8.9	98	394	688	10.8	98	3248	20348	6.2	98	591	1280
7000-8000	2.1	98	258	482	8.0	98	394	688	10.2	98	2888	27883	8.8	98	541	1338
8000-9000	2.7	98	187	394	8.4	98	258	591	11.8	98	1888	28215	8.5	98	591	1478
9000-10000	1.8	98	187	374	3.8	98	258	482	10.0	98	984	25132	9.0	98	482	984
10000-11000	3.3	98	187	328	8.2	98	258	482	20.1	98	3347	24837	11.2	98	482	1240
11000-12000	2.3	98	148	258	4.0	98	258	394	11.2	98	2805	23380	9.2	98	591	1280
12000-13000	2.1	98	187	258	3.9	98	187	394	12.3	98	2758	22883	9.0	98	591	1308
13000-14000	1.8	98	98	258	2.9	98	187	344	11.7	98	3180	21887	10.1	98	591	1083
14000-15000	1.8	98	98	187	3.2	98	187	258	13.2	98	3478	20804	9.8	98	591	1181
15000-16000	1.1	98	98	238	3.1	98	98	258	11.3	98	2820	18821	8.8	98	394	1017
16000-17000	0.8	98	184	184	2.8	98	184	328	11.8	488	8022	18701	9.0	184	482	1148
17000-18000	0.4	184	184	184	0.9	184	184	278	8.8	558	13780	17717	7.5	184	482	1148
18000-19000	2.2	184	184	184	1.7	184	184	328	14.4	688	18812	18733	11.1	184	482	820
19000-20000	0.3	184	184	184	0.8	184	184	184	8.8	1214	18082	18748	5.0	184	482	937

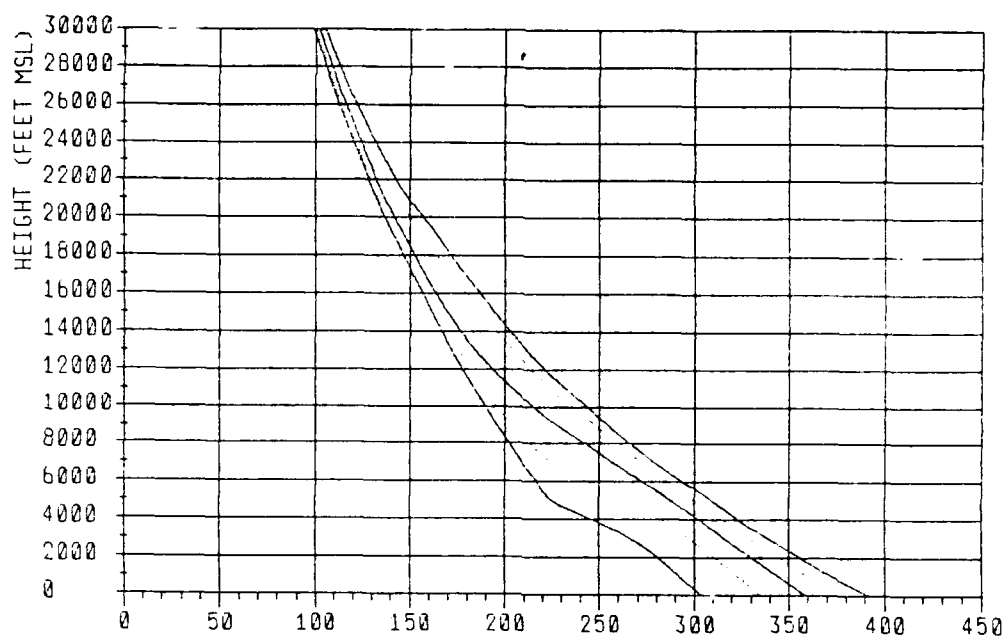
1200Z

FIGURE B-1-1-D

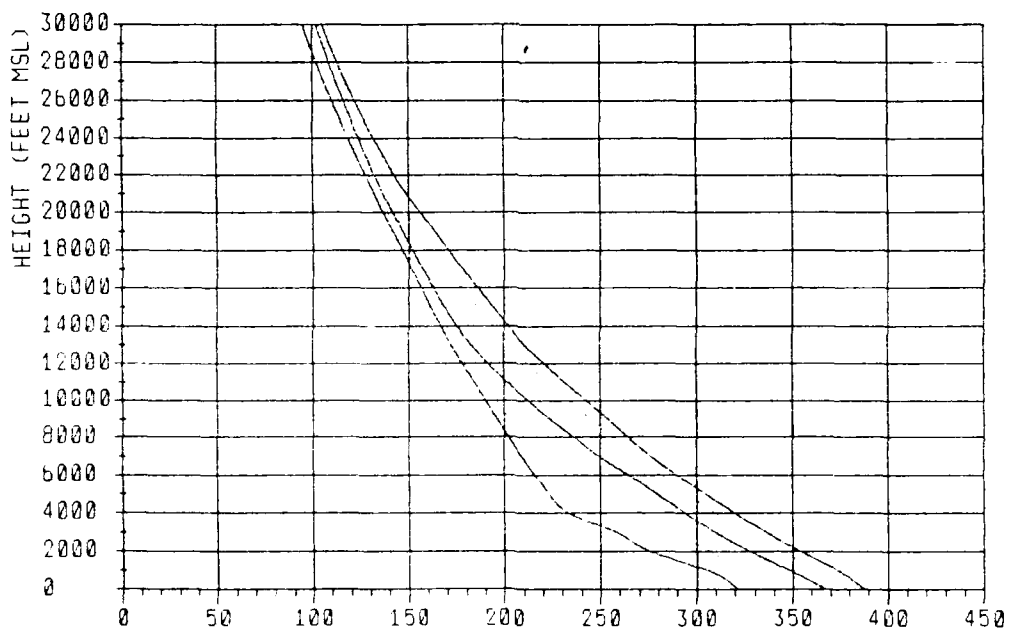
MERIDA

WET-DRY TRANSITION

N PERCENTILES



N (N-Units) 0000Z

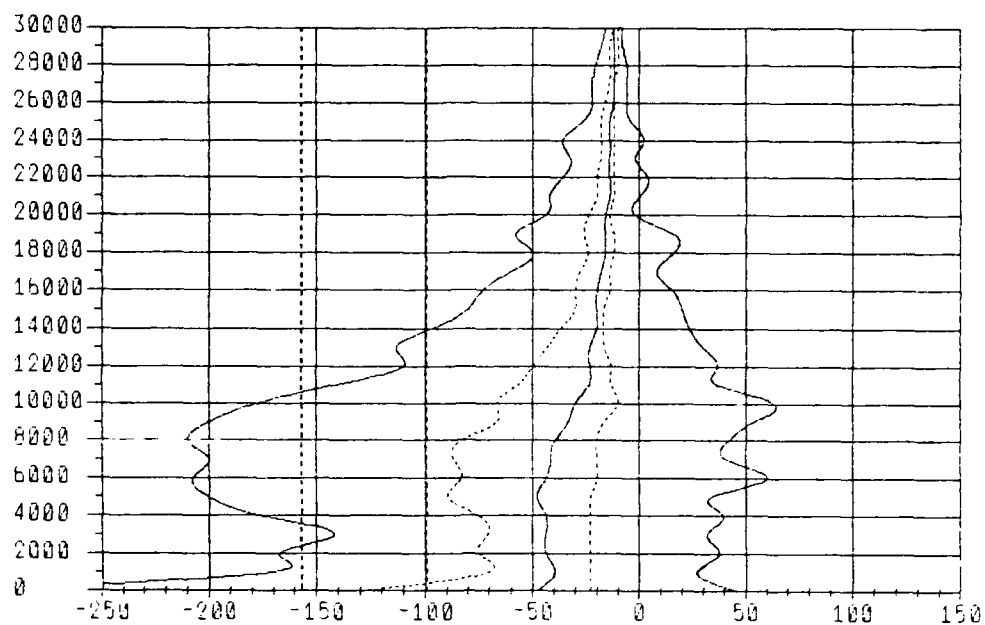


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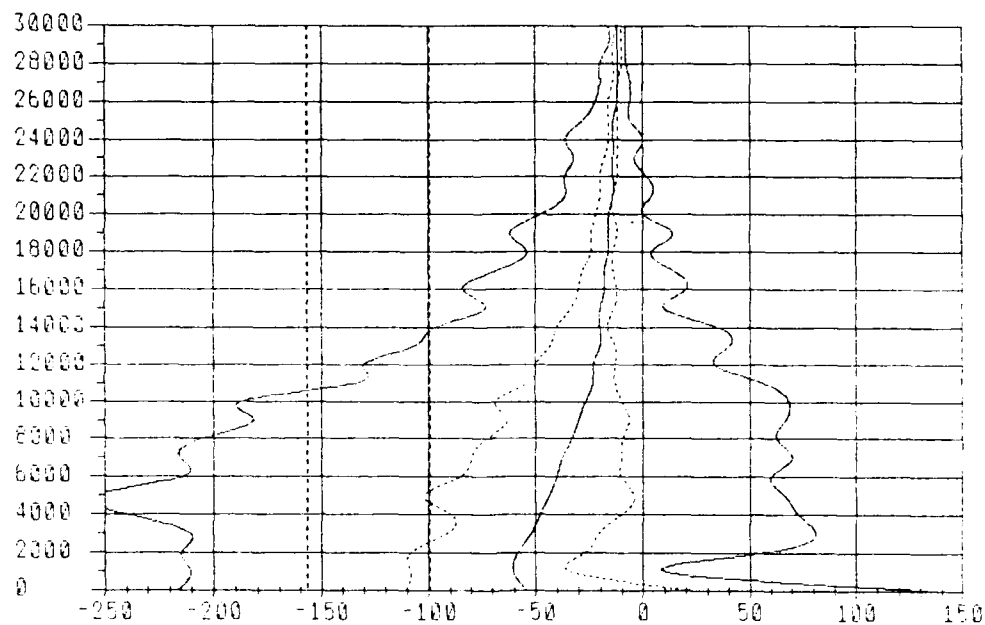
FIGURE B-1-2-A

B-7

GRADIENT PERCENTILES



DNDH (N-Units) 0000Z



DNDH (N-Units) 1200Z

FIGURE B-1-2-B

MERIDA

WET-DRY TRANSITION

HOT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SELR	SUB
500-500	312.72	342.88	368.00	362.80	368.11	-438.38	-184.21	-72.81	-28.00	283.40	27.8	18.8	8.3
500-1000	287.87	332.14	388.00	371.80	368.88	-133.33	-88.88	-38.88	-22.81	14.04	0.8	2.8	1.8
1000-1800	280.08	328.72	348.88	368.88	374.23	-178.18	-88.78	-38.88	-22.81	22.38	2.8	3.8	1.8
1800-2000	278.08	328.88	341.88	388.88	368.80	-182.80	-70.83	-41.88	-22.81	28.18	3.0	6.8	2.8
2000-2800	273.88	318.00	334.38	348.80	358.00	-188.28	-72.81	-43.78	-22.81	41.88	2.3	8.1	3.8
2800-3000	273.00	307.88	328.80	340.18	348.78	-178.23	-77.08	-43.78	-22.81	33.33	2.8	8.4	4.1
3000-3800	288.87	300.28	318.80	331.78	340.08	-180.00	-71.87	-48.88	-22.81	37.80	1.7	8.0	3.2
3800-4000	283.28	282.88	311.88	324.88	332.08	-141.12	-70.83	-43.78	-22.81	33.33	1.8	4.2	3.0
4000-4800	284.42	288.82	308.28	317.18	324.08	-180.41	-78.00	-43.78	-22.81	38.08	2.8	8.8	8.8
4800-8000	240.80	277.88	288.88	310.18	317.73	-218.88	-81.28	-43.78	-22.81	70.31	8.8	8.8	8.8
5000-8000	224.37	280.88	288.88	289.18	308.08	-203.48	-88.88	-47.81	-20.83	38.88	7.0	14.7	7.3
8000-7000	218.80	240.88	270.88	284.00	281.80	-208.80	-83.33	-43.78	-20.08	80.07	7.4	13.4	8.3
7000-8000	208.88	224.80	288.08	270.88	278.08	-204.88	-88.88	-41.88	-19.82	43.24	7.8	18.4	8.4
8000-9000	201.20	211.80	240.20	288.00	288.08	-208.84	-78.88	-37.80	-19.82	37.48	8.1	14.8	8.1
9000-10000	194.80	201.80	224.80	248.40	282.31	-188.87	-83.41	-33.33	-13.28	80.02	8.4	8.8	12.8
10000-11000	188.80	184.40	212.30	233.80	241.42	-183.41	-88.88	-28.88	-10.03	84.18	8.7	10.3	18.8
11000-12000	182.07	187.10	201.00	223.10	228.70	-133.33	-88.84	-23.44	-13.28	38.71	3.2	8.8	8.4
12000-13000	178.40	180.80	181.20	211.80	218.72	-113.28	-48.81	-23.30	-13.41	37.37	2.8	4.8	8.0
13000-14000	170.80	174.10	182.80	202.13	208.70	-113.32	-43.23	-20.08	-18.88	28.88	3.1	8.1	7.8
14000-15000	168.10	168.10	174.40	192.70	200.20	-98.81	-33.33	-20.08	-13.41	20.08	1.8	3.8	7.0
15000-16000	180.00	182.80	187.70	184.80	182.00	-83.33	-30.07	-18.82	-13.41	23.44	1.0	2.3	8.1
16000-17000	188.00	187.40	181.80	178.80	184.88	-78.78	-30.00	-17.88	-13.88	14.88	0.7	2.2	8.8
17000-18000	180.02	182.10	188.00	188.30	178.10	-52.03	-28.01	-17.88	-13.88	8.02	0.4	0.4	4.8
18000-19000	144.80	148.80	180.70	181.80	188.80	-52.88	-24.08	-18.01	-11.88	20.88	0.8	0.8	7.8
19000-20000	140.10	141.80	148.10	184.70	181.21	-80.00	-28.01	-18.01	-13.88	3.88	0.3	0.8	2.8
20000-21000	138.70	137.20	140.30	147.80	184.80	-43.88	-22.03	-18.01	-13.88	-1.88	0.2	0.2	2.3
21000-22000	131.40	132.80	138.70	141.80	147.30	-40.00	-20.00	-14.08	-12.03	1.88	0.0	0.2	2.8
22000-23000	127.20	128.80	131.30	138.80	141.40	-34.43	-18.04	-13.88	-11.88	2.03	0.0	0.0	2.7
23000-24000	122.80	123.80	128.80	131.20	138.80	-32.03	-17.88	-13.88	-11.88	0.00	0.0	0.0	2.7
24000-28000	118.80	118.80	122.30	128.10	128.80	-33.88	-17.88	-13.88	-11.88	2.03	0.2	0.2	4.4
28000-28000	114.78	118.00	118.28	121.80	124.83	-23.88	-18.01	-13.88	-11.88	-8.02	0.0	0.0	0.8
28000-27000	111.08	112.20	114.40	117.10	118.80	-21.88	-18.01	-12.03	-11.88	-8.02	0.0	0.0	1.2
27000-28000	108.80	108.10	110.30	112.80	118.10	-22.03	-14.08	-12.03	-10.00	-8.02	0.0	0.0	1.4
28000-28000	103.40	104.80	108.40	108.40	110.20	-20.00	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.8
28000-30000	98.80	101.10	102.80	104.80	108.10	-18.01	-13.88	-11.88	-10.00	-8.08	0.0	0.0	0.8
30000-31000	88.80	87.80	88.80	101.10	102.30	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
31000-32000	83.30	84.80	88.20	87.70	88.80	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
32000-33000	88.80	81.00	82.70	84.30	88.80	-18.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	88.10	87.80	88.20	80.80	81.40	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	83.88	85.70	88.70	87.80	88.10	-22.03	-10.00	-10.00	-10.00	-7.87	0.0	0.0	0.0

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HOT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SELR	SUB
500-500	328.22	348.22	371.88	381.88	388.08	-281.28	-113.33	-38.88	-28.08	170.83	10.0	18.8	44.7
500-1000	312.82	340.00	384.75	378.87	384.04	-183.33	-108.28	-60.41	-21.04	47.81	8.0	18.2	8.4
1000-1800	308.82	330.78	354.18	368.87	378.38	-203.71	-108.28	-62.80	-23.33	9.88	8.4	13.3	2.2
1800-2000	293.73	321.70	343.28	388.78	388.02	-210.41	-112.50	-80.41	-33.33	18.88	8.8	18.8	3.1
2000-2800	288.88	313.08	322.88	348.00	358.24	-233.00	-114.88	-80.41	-28.18	43.41	8.8	18.4	8.0
2800-3000	288.88	302.84	322.18	337.08	348.78	-218.88	-104.18	-88.28	-23.30	70.83	8.8	14.8	7.2
3000-3800	288.78	291.88	312.88	327.84	338.88	-232.78	-83.78	-84.18	-20.83	84.83	8.4	10.0	7.8
3800-4000	237.33	282.38	304.80	318.88	327.37	-218.00	-88.28	-80.00	-18.88	84.18	4.7	8.8	7.8
4000-4800	233.80	274.37	288.88	311.88	318.88	-224.78	-88.88	-47.81	-10.42	88.33	8.8	8.8	10.0
4800-8000	228.31	283.88	288.88	304.80	312.37	-278.82	-88.83	-48.83	-8.33	83.33	8.0	14.8	13.2
5000-6000	222.30	248.13	277.80	283.78	303.00	-240.88	-100.00	-43.78	-4.17	80.88	10.8	18.2	14.3
6000-7000	218.00	231.20	282.88	280.08	287.88	-213.87	-88.41	-38.87	-10.42	88.82	8.8	13.8	12.8
7000-8000	208.80	218.00	247.30	287.88	278.38	-214.18	-78.88	-37.80	-10.03	88.88	8.0	11.2	13.2
8000-9000	201.17	208.80	233.80	288.00	288.08	-208.48	-70.08	-33.33	-8.80	84.28	8.0	8.7	12.8
9000-10000	184.80	201.10	220.80	242.40	281.82	-188.82	-80.02	-28.88	-8.84	73.30	8.8	8.0	18.0
10000-11000	188.87	183.80	208.10	231.10	240.22	-178.88	-88.88	-28.88	-10.03	84.23	7.2	10.7	18.1
11000-12000	182.30	186.70	188.40	220.20	228.42	-138.43	-83.28	-23.30	-13.28	80.00	3.7	7.4	10.8
12000-13000	178.80	180.30	188.10	210.00	218.12	-120.73	-80.00	-23.30	-13.28	28.88	2.4	8.8	8.0
13000-14000	170.80	173.80	180.80	201.00	208.80	-103.38	-43.23	-20.08	-13.41	43.38	1.4	4.4	10.3
14000-18000	168.17	168.10	172.80	192.10	198.70	-83.38	-38.71	-20.08	-18.88	20.08	1.8	2.7	8.7
15000-16000	180.00	182.80	188.80	182.40	181.83	-74.34	-33.33	-18.82	-13.41	13.41	1.1	1.8	8.8
16000-17000	188.00	187.30	181.40	174.20	183.20	-80.00	-28.88	-17.88	-13.88	17.88	0.8	1.8	8.8
17000-18000	180.10	182.10	188.80	188.80	178.20	-87.88	-28.01	-17.88	-13.88	10.33	0.8	1.1	4.3
18000-19000	144.80	148.80	180.20	188.80	187.84	-88.78	-23.88	-18.01	-12.03	12.78	0.7	0.8	8.8
19000-20000	138.80	141.70	144.70	182.20	188.80	-47.82	-23.88	-18.01	-13.88	1.80	0.1	0.3	3.1
20000-21000	138.40	137.20	138.80	148.00	183.08	-43.88	-20.00	-18.84	-13.88	2.02	0.4	0.3	2.8
21000-22000	131.00	132.80	138.40	140.80	148.80	-40.00	-20.00	-14.08	-12.03	4.08	0.0	0.0	3.7
22000-23000	128.80	128.80	131.00	138.80	140.80	-32.03	-18.04	-13.88	-11.88	0.00	0.0	0.1	2.8
23000-24000	121.48	123.80	128.80	130.40	134.81	-32.03	-17.88	-13.88	-11.88	-2.02	0.0	0.0	2.3
24000-28000	118.70	118.80	122.00	128.80	128.20	-33.88	-18.01	-13.88	-11.88	-2.03	0.1	0.3	3.1
28000-28000	112.80	118.80	118.00	120.80	124.00	-23.88	-18.01	-13.88	-11.88	-8.02	0.0	0.0	0.8
28000-27000	108.48	112.10	114.20	118.80	118.31	-21.88	-14.08	-12.03	-11.88	-7.87	0.0	0.0	0.8
27000-28000	103.87	108.00	110.10	112.40	114.70	-20.00	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.7
28000-28000	100.00	104.80	108.20	108.10	110.10	-17.88	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.3
28000-30000	98.37	101.10	102.80	104.80	108.20	-18.01	-12.03	-11.88	-10.00	-8.08	0.0	0.0	0.4
30000-31000	82.87	87.80	88.80	101.10	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
31000-32000	88.38	84.80	88.10	87.70	88.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
32000-33000	88.88	81.00	82.80	84.30	88.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
33000-34000	82.80	87.80	88.20	80.80	81.32	-21.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	80.00	85.70	88.70	87.80	88.20	-18.04	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
SPC-500	27.5	161	259	358	39.5	98	259	412	98.4	1587	6693	14877	6.3	98	358	1190
500-1000	0.2	482	482	482	1.1	98	1161	1969	2.3	98	9268	34414	0.8	98	2264	4036
1000-1500	2.3	157	482	630	2.0	206	767	1142	1.2	98	9262	34188	0.8	591	591	886
1500-2000	1.4	197	394	492	3.8	98	197	689	3.6	98	6298	15667	1.1	394	591	1476
2000-2500	1.8	128	394	689	2.7	98	98	1161	4.4	98	5413	28025	1.5	98	689	2402
2500-3000	1.4	197	394	689	3.9	98	591	1083	4.1	98	5330	24502	1.8	335	492	984
3000-3500	0.8	197	492	492	1.8	98	148	1053	5.3	98	3180	9862	0.9	591	886	1476
3500-4000	1.2	98	394	767	3.3	98	394	958	3.0	108	1378	6053	1.1	98	640	1575
4000-4500	1.6	98	492	689	3.5	98	394	648	3.5	98	1969	6169	2.0	98	443	787
4500-5000	4.4	197	298	571	7.0	98	394	686	9.5	98	4232	30250	3.4	98	394	1835
5000-6000	5.2	98	394	691	11.0	98	298	767	17.4	98	4823	28896	5.7	98	689	1919
6000-7000	6.0	197	394	691	11.0	98	394	767	13.6	98	4134	28872	5.1	98	689	1388
7000-8000	6.5	167	298	492	10.8	98	394	689	16.4	98	6116	27888	4.9	98	640	1083
8000-9000	6.5	98	298	492	11.2	98	298	591	15.4	98	6102	26945	5.1	167	686	1437
9000-10000	5.4	98	298	492	7.3	98	197	492	12.9	98	2904	25723	6.3	98	492	1004
10000-11000	4.9	98	197	394	8.9	98	197	492	22.1	98	9118	24935	9.3	98	394	1181
11000-12000	2.9	98	197	394	8.0	98	197	394	11.6	98	2758	23784	6.1	98	492	1181
12000-13000	2.3	98	197	298	4.1	98	197	394	6.0	98	8858	22789	6.1	98	640	1211
13000-14000	3.1	98	197	298	4.8	98	197	325	10.2	98	6644	21795	4.5	98	492	1142
14000-15000	1.2	98	98	298	2.8	98	197	394	7.1	98	10729	20634	4.6	98	492	1083
15000-16000	1.0	98	98	197	1.8	98	197	298	6.0	98	2890	18521	4.2	98	541	1066
16000-17000	0.7	131	164	164	1.7	164	164	318	5.2	478	9108	18701	5.1	197	492	984
17000-18000	0.4	164	164	164	0.4	164	164	164	3.4	361	4429	17619	3.2	164	620	1427
18000-19000	0.6	164	164	164	0.9	164	164	164	7.7	492	15812	18078	6.3	164	492	620
19000-20000	0.3	164	164	164	0.8	164	164	164	2.7	1836	15174	15600	1.4	164	328	1148

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BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
SPC-500	10.0	82	358	554	18.9	98	398	1083	91.3	358	3839	14778	44.7	259	358	492
500-1000	2.3	98	298	767	7.5	98	394	1280	14.8	98	3051	18782	1.2	197	394	686
1000-1500	4.3	98	492	689	5.7	98	689	1280	6.6	98	3180	33794	1.2	197	591	787
1500-2000	3.4	138	492	808	7.8	98	591	1240	7.2	98	3180	18762	2.0	98	739	1989
2000-2500	2.8	197	394	689	7.3	98	492	1083	6.9	98	2559	7674	3.2	138	492	1220
2500-3000	4.7	197	394	689	7.2	98	298	1073	13.2	98	2118	29630	3.7	236	591	1515
3000-3500	2.8	285	394	591	4.8	98	298	767	6.9	98	1575	7923	3.4	148	591	1476
3500-4000	3.2	98	443	689	5.4	98	298	858	6.9	98	1181	31238	4.2	98	684	1368
4000-4500	3.5	98	443	591	5.6	98	492	878	6.4	98	1476	10116	5.1	177	591	1220
4500-5000	6.8	197	298	591	10.4	98	298	690	16.2	98	2853	30250	5.8	98	492	1476
5000-6000	6.0	98	298	522	13.3	98	394	767	24.8	98	3180	28857	9.0	98	591	1408
6000-7000	7.9	197	394	492	10.3	98	298	591	17.0	98	3448	28872	7.2	98	591	1890
7000-8000	7.2	98	298	492	9.2	98	344	689	17.8	98	2510	27593	6.3	98	492	1181
8000-9000	6.3	98	298	492	7.3	98	298	492	17.6	98	2362	26854	6.7	98	591	1368
9000-10000	4.3	98	197	394	6.2	98	197	394	13.3	98	1280	25624	10.0	98	492	984
10000-11000	6.4	98	197	394	9.7	98	197	492	22.5	98	6644	24935	8.6	98	689	1368
11000-12000	3.3	98	197	394	6.6	98	298	394	11.2	98	2758	23951	6.6	197	689	1280
12000-13000	2.1	98	197	236	4.0	98	248	394	10.8	197	6037	22868	5.7	98	591	1309
13000-14000	1.4	98	148	285	4.0	98	298	298	9.3	98	5413	21687	5.7	98	492	1083
14000-15000	1.8	98	98	197	2.1	98	148	325	7.7	98	14371	20830	2.9	98	394	1083
15000-16000	1.1	98	98	298	1.4	98	197	276	5.5	98	2986	18541	5.0	98	525	925
16000-17000	0.4	131	164	164	1.9	131	164	285	6.8	538	14846	18714	4.3	160	591	886
17000-18000	0.6	164	164	164	1.1	164	164	164	4.7	984	17061	17717	2.3	164	328	951
18000-19000	0.7	164	164	164	0.9	164	164	328	6.8	771	18912	18733	5.5	164	492	620
19000-20000	0.1	164	164	164	0.3	164	164	164	3.1	2528	15092	18748	1.7	213	492	771

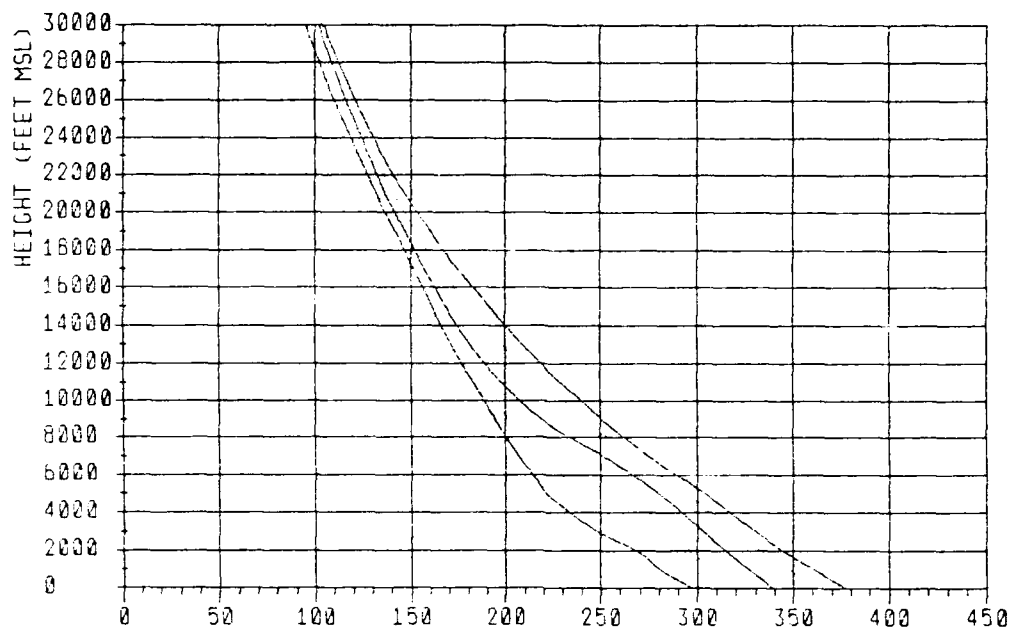
1200Z

FIGURE B-1-2-D

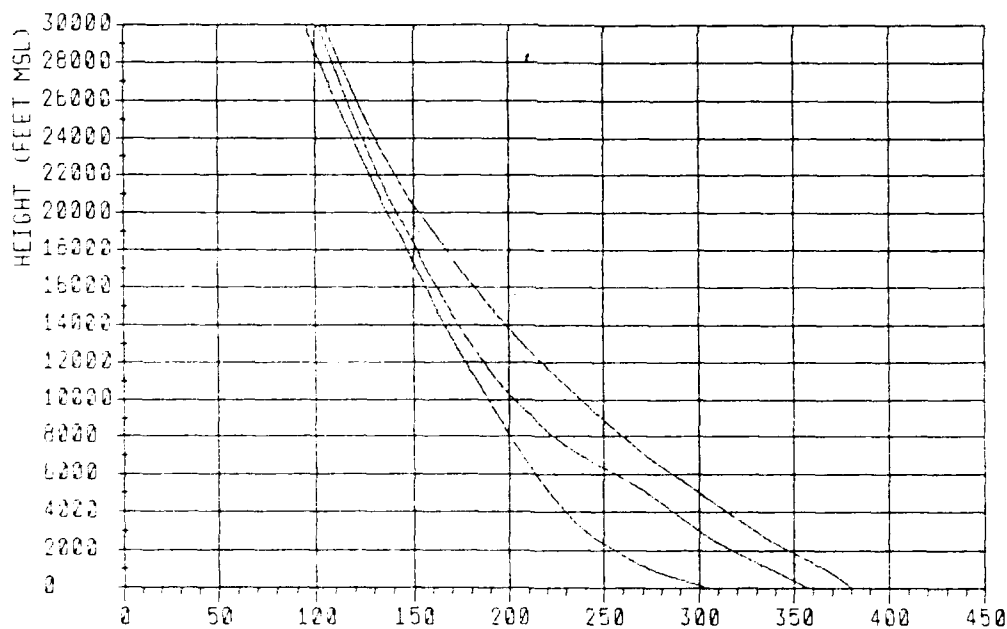
MERIDA

DRY SEASON

N PERCENTILES



N (N-Units) 0000Z



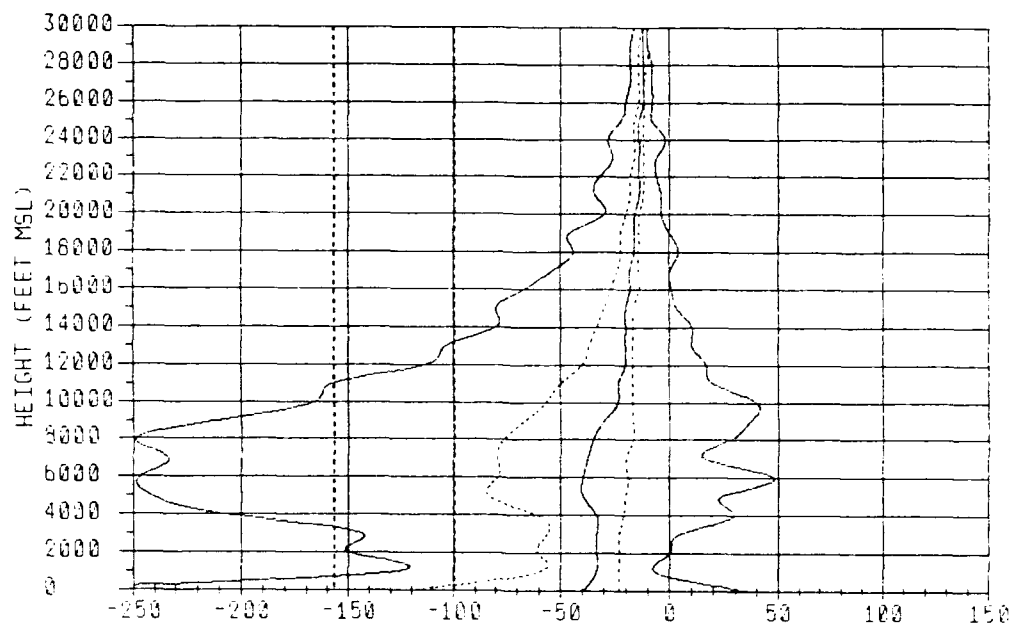
N (N-Units) 1200Z

FIGURE B-1-3-A

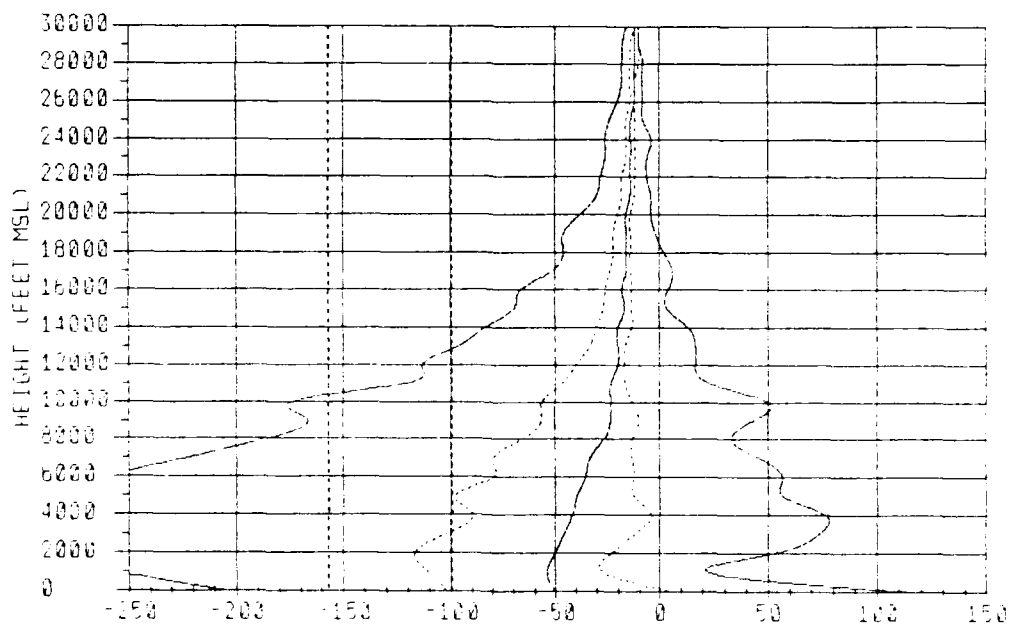
MERIDA

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-1-3-B

B-12

MERIDA

DRY SEASON

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUOT	OCCURRENCE	
		10%	50%	90%	95%	10%	50%	90%	95%			SRLR	SUB
5FC-500	301.87	323.38	348.00	368.58	381.58	-432.99	-172.91	-88.79	-22.91	127.08	24.7	32.9	8.3
500-1000	292.98	314.75	338.08	358.28	371.19	-133.33	-80.41	-33.33	-22.91	-4.17	1.1	1.9	0.8
1000-1500	279.58	308.75	330.28	351.38	363.50	-120.98	-88.33	-33.33	-22.91	-8.12	1.0	2.6	0.8
1500-2000	278.48	304.81	324.38	344.28	358.78	-133.33	-80.41	-33.33	-22.91	-4.17	1.3	2.8	1.0
2000-2500	270.22	298.75	318.88	338.88	347.28	-154.38	-82.80	-33.33	-22.91	-2.08	1.9	3.3	1.3
2500-3000	260.18	293.88	312.00	328.08	338.89	-180.00	-80.41	-33.33	-22.91	2.08	1.8	3.2	1.5
3000-3500	248.08	288.15	308.88	321.88	331.89	-137.80	-88.28	-33.33	-22.91	4.17	1.6	2.7	1.6
3500-4000	238.27	282.88	300.08	315.78	324.88	-144.00	-88.28	-33.33	-22.91	8.28	1.6	2.2	1.8
4000-4500	234.30	278.88	294.80	308.88	318.18	-170.83	-88.33	-33.33	-20.83	20.83	2.7	3.4	2.8
4500-5000	228.98	289.75	289.00	303.75	312.03	-258.18	-88.88	-38.41	-20.83	33.33	8.7	8.8	4.8
5000-6000	220.71	248.08	278.00	283.38	303.00	-248.30	-83.33	-38.88	-20.08	28.42	8.8	11.8	4.8
6000-7000	213.30	228.80	285.19	279.80	288.00	-232.11	-78.18	-38.88	-18.78	48.74	8.3	12.1	8.1
7000-8000	208.40	217.50	280.80	287.00	274.88	-233.33	-78.27	-37.80	-18.82	18.88	8.3	12.1	8.7
8000-9000	199.30	208.30	232.80	253.80	261.88	-238.87	-78.22	-33.33	-18.88	28.88	8.8	12.8	8.8
9000-10000	193.00	200.20	217.10	240.20	243.30	-188.87	-80.02	-28.88	-18.88	43.23	8.3	8.8	7.8
10000-11000	187.10	193.10	205.80	228.30	238.00	-170.05	-88.84	-23.44	-18.88	38.88	8.0	7.4	8.7
11000-12000	181.00	188.20	195.90	217.80	228.70	-143.34	-88.74	-23.30	-18.88	18.88	4.8	8.7	8.2
12000-13000	178.40	178.80	187.40	208.40	218.10	-113.28	-38.87	-20.08	-13.41	18.88	2.3	4.3	8.4
13000-14000	188.80	178.80	178.80	198.70	208.80	-98.74	-38.88	-20.08	-18.88	13.28	2.2	3.8	8.0
14000-15000	184.80	187.80	172.80	187.10	187.80	-83.33	-33.33	-20.08	-18.88	8.84	1.2	2.8	3.8
15000-16000	188.80	182.40	188.80	178.80	188.70	-73.30	-28.88	-18.82	-18.88	3.38	0.8	1.8	2.8
16000-17000	184.80	187.30	181.20	178.22	188.83	-60.00	-25.18	-17.88	-14.08	0.00	0.4	0.7	2.8
17000-18000	148.80	182.10	188.80	182.80	172.10	-52.03	-23.88	-18.01	-13.88	0.28	0.3	0.8	2.8
18000-19000	144.70	148.70	180.20	188.80	184.40	-48.01	-22.03	-18.01	-13.88	8.02	0.8	0.8	4.8
19000-20000	138.88	141.80	144.80	150.20	187.40	-38.83	-21.88	-18.01	-13.88	-4.08	0.4	0.3	1.8
20000-21000	135.48	137.30	140.10	144.80	181.10	-32.03	-20.00	-18.84	-13.88	-3.88	0.0	0.0	1.8
21000-22000	130.80	138.80	138.80	138.70	148.10	-34.88	-18.04	-13.88	-12.03	-8.84	0.1	0.3	1.4
22000-23000	128.30	128.70	131.20	134.80	139.10	-30.00	-18.01	-13.88	-11.88	-7.87	0.3	0.0	0.8
23000-24000	121.40	124.10	128.80	130.10	133.71	-28.01	-18.01	-13.88	-11.88	-3.88	0.0	0.3	1.8
24000-25000	118.70	120.10	122.40	128.30	128.40	-28.01	-18.01	-13.88	-11.88	-7.87	0.1	0.1	1.8
25000-26000	112.40	118.20	118.30	120.80	123.32	-20.00	-18.84	-13.88	-11.88	-8.08	0.0	0.0	0.3
26000-27000	108.20	112.40	114.80	118.70	119.00	-20.00	-14.08	-12.03	-11.88	-8.08	0.0	0.0	0.8
27000-28000	104.00	108.30	110.40	112.80	114.70	-17.88	-13.88	-12.03	-10.00	-8.08	0.0	0.0	0.8
28000-29000	98.84	104.70	108.80	108.40	110.00	-17.88	-13.88	-11.88	-10.00	-10.00	0.0	0.0	0.3
29000-30000	98.30	101.30	103.00	104.70	108.10	-18.01	-12.03	-11.88	-10.00	-10.00	0.0	0.0	0.3
30000-31000	92.80	98.00	98.70	101.30	102.80	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
31000-32000	88.40	94.70	98.30	97.80	98.80	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
32000-33000	88.70	91.00	92.70	94.80	98.40	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	82.20	87.70	88.30	90.70	91.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	78.80	85.40	88.80	87.80	88.80	-14.01	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

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HGT	N PERCENTILES				DNDR PERCENTILES				PERCENT		OCCURRENCE		
FT MSL	1%	10%	50%	95%	1%	10%	50%	95%	DUCT	SRLR	SUB		
5FC-500	318.37	334.84	381.75	374.00	382.24	-222.80	-108.88	-48.83	33.33	183.88	8.8	18.3	31.8
500-1000	298.54	324.88	354.44	387.88	378.80	-187.80	-100.00	-82.08	-20.83	33.33	4.4	11.4	7.1
1000-1500	287.13	318.25	344.28	358.88	368.84	-237.80	-108.28	-84.18	-28.18	20.12	8.4	11.2	2.4
1500-2000	287.08	310.71	333.08	348.88	358.00	-277.08	-118.88	-84.18	-27.08	28.00	8.1	14.8	3.4
2000-2500	288.00	300.75	322.78	340.00	348.73	-288.84	-118.12	-84.18	-28.00	43.78	8.8	14.0	4.8
2500-3000	248.37	258.88	312.80	330.18	338.88	-277.88	-118.88	-80.00	-18.78	80.41	10.8	18.2	7.4
3000-3500	243.33	278.08	303.08	320.75	330.43	-288.08	-108.28	-47.81	-14.88	72.81	8.3	13.1	7.8
3500-4000	238.80	287.00	288.88	313.25	322.80	-238.41	-93.75	-43.78	-10.42	88.88	8.8	11.0	8.3
4000-4500	231.84	288.20	288.78	308.00	318.78	-248.14	-88.88	-43.88	-4.17	82.80	8.2	8.8	11.7
4500-5000	227.40	248.81	282.75	288.38	308.28	-337.24	-81.88	-38.88	-2.08	88.83	8.4	10.8	13.8
5000-6000	220.72	233.50	271.00	288.88	288.08	-241.88	-83.78	-38.88	-12.80	88.28	11.7	17.2	10.7
6000-7000	213.20	223.30	284.80	274.78	284.08	-250.00	-78.88	-38.41	-12.80	93.88	8.8	13.0	10.8
7000-8000	208.43	214.80	238.20	282.78	270.88	-218.88	-78.88	-33.33	-13.41	80.00	8.8	14.2	8.8
8000-9000	188.80	208.80	222.80	280.20	288.88	-178.88	-83.41	-28.88	-13.28	38.71	8.8	10.8	8.0
9000-10000	183.40	188.80	211.80	238.10	248.40	-173.43	-88.84	-23.44	-10.03	83.28	8.4	7.8	10.3
10000-11000	187.50	188.80	201.40	227.80	238.20	-183.28	-88.84	-23.30	-13.41	38.87	8.8	7.0	10.8
11000-12000	181.30	188.00	182.80	218.30	228.27	-120.08	-48.84	-23.30	-18.88	18.82	3.2	8.2	8.7
12000-13000	178.70	178.70	185.10	208.10	214.80	-108.77	-38.71	-20.08	-13.41	18.82	2.4	4.3	8.8
13000-14000	170.00	173.80	178.80	184.80	208.20	-92.48	-33.33	-20.08	-18.88	18.88	1.8	3.2	4.8
14000-15000	164.80	187.80	171.80	188.70	188.80	-83.33	-30.07	-18.82	-13.41	8.84	1.8	2.8	4.2
15000-16000	158.70	182.80	188.20	177.80	187.80	-70.08	-28.88	-18.88	-13.41	0.00	0.8	1.8	2.8
16000-17000	154.80	187.30	180.80	170.30	178.80	-82.71	-28.00	-17.88	-13.88	8.84	0.8	1.0	3.4
17000-18000	150.10	182.20	188.20	183.20	171.80	-51.88	-22.03	-18.01	-13.88	3.88	0.8	0.4	3.2
18000-19000	144.80	148.70	180.00	188.80	184.80	-80.78	-22.03	-18.01	-12.03	3.88	0.8	0.4	4.8
19000-20000	140.28	141.80	144.70	180.30	187.08	-38.04	-21.88	-18.01	-13.88	-3.88	0.1	0.1	1.8
20000-21000	135.50	137.40	140.00	144.80	180.80	-38.88	-20.00	-18.84	-13.88	-3.88	0.2	0.0	1.4
21000-22000	131.10	133.00	138.80	138.80	144.80	-30.00	-18.04	-13.88	-12.03	-4.72	0.1	0.2	1.4
22000-23000	128.80	128.70	131.10	134.70	138.30	-27.88	-17.88	-13.88	-11.88	-8.02	0.1	0.2	1.8
23000-24000	121.78	124.10	128.70	128.80	133.70	-28.83	-18.01	-13.88	-11.88	-8.84	0.0	0.2	1.8
24000-25000	117.20	120.00	122.20	128.20	128.40	-24.08	-18.01	-13.88	-11.88	-8.02	0.0	0.0	1.8
25000-26000	112.78	118.10	118.20	120.80	123.81	-22.03	-18.01	-13.88	-11.88	-7.37	0.0	0.1	0.4
26000-27000	108.80	112.40	114.40	118.80	118.20	-20.00	-14.08	-12.03	-11.88	-8.08	0.0	0.0	0.8
27000-28000	104.23	108.20	110.30	112.80	114.70	-18.04	-13.88	-12.03	-10.00	-8.08	0.0	0.0	0.8
28000-29000	100.00	104.80	108.80	108.30	110.00	-17.88	-13.88	-11.88	-10.00	-10.00	0.0	0.0	0.8
29000-30000	98.30	101.20	103.00	104.70	108.10	-17.88	-12.03	-11.88	-10.00	-10.00	0.0	0.0	0.3
30000-31000	82.88	87.80	88.80	101.30	102.40	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.4
31000-32000	88.47	84.80	88.30	87.80	88.80	-17.88	-12.03	-10.00	-10.00	-8.08	0.0	0.0	0.2
32000-33000	88.00	88.80	82.70	84.40	85.40	-22.02	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	82.50	87.80	88.20	80.70	81.80	-18.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	79.80	88.30	88.78	87.80	88.80	-13.88	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

MERIDA

DRY SEASON

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10X	50X	90X		10X	50X	90X		10X	50X	90X		10X	50X	90X
SPC-800	24.7	98	259	458	32.8	98	259	458	98.9	2438	7247	34877	8.3	98	259	458
800-1000	0.2	187	295	394	1.0	98	394	888	3.2	1142	5413	34860	0.3	98	98	295
1000-1800	0.7	187	394	888	1.6	98	492	1043	1.6	98	4823	26168	0.7	98	492	1804
1800-2000	1.0	295	492	1004	1.5	98	541	888	2.2	177	8397	33460	0.3	98	837	1878
2000-2800	0.8	128	295	787	1.9	98	295	1004	2.1	98	5512	32808	0.8	128	837	2037
2800-3000	1.2	187	492	820	1.9	98	443	817	2.9	98	4828	15847	0.8	98	984	2264
3000-3800	1.1	187	295	888	1.3	98	443	888	2.5	98	2758	11358	0.8	98	1378	1772
3800-4000	1.0	187	394	840	1.3	98	394	888	2.3	98	2758	31333	0.9	98	738	1280
4000-4800	1.9	98	394	981	2.7	98	197	988	2.4	98	1378	30988	1.1	98	888	1240
4800-8000	4.8	187	295	492	5.4	98	295	787	7.4	98	8004	30280	2.4	98	541	1478
8000-8000	7.2	98	394	492	9.2	98	295	787	15.0	138	8464	29818	3.3	108	888	1478
8000-7000	7.4	187	295	492	10.1	98	197	888	15.8	394	8888	28872	3.4	98	492	1614
7000-8000	7.8	98	295	492	10.6	98	295	881	13.7	394	8887	27888	3.6	98	888	1880
8000-9000	8.8	98	295	492	10.8	98	295	881	15.8	394	26218	28943	4.4	98	492	1578
9000-10000	4.8	98	295	492	7.5	98	187	394	12.4	98	13714	25821	4.8	98	492	1024
10000-11000	5.8	98	187	394	6.9	98	187	423	15.1	591	21084	24938	5.2	98	541	1211
11000-12000	4.1	98	187	394	5.7	98	187	394	10.0	98	7644	23852	4.0	98	492	1280
12000-13000	2.0	98	98	295	3.9	98	187	394	8.2	98	11288	22671	4.3	98	591	1280
13000-14000	2.1	98	98	187	2.9	98	187	394	7.7	98	21086	21785	3.7	98	344	1181
14000-18000	1.2	98	98	217	2.2	98	187	394	4.9	128	7484	20703	2.0	98	344	1083
18000-18000	0.8	98	98	98	1.4	98	187	295	4.3	98	13074	19888	2.2	98	492	820
18000-17000	0.4	184	184	184	0.7	184	184	328	2.9	837	18373	18931	1.7	145	381	771
17000-18000	0.3	184	184	184	0.5	184	184	328	3.0	1345	17388	17881	2.0	184	492	984
18000-19000	0.8	184	184	184	0.9	184	184	184	5.3	607	15994	16588	3.8	184	328	820
19000-20000	0.4	184	184	184	0.3	184	184	184	1.9	3117	15082	15584	1.3	184	328	820

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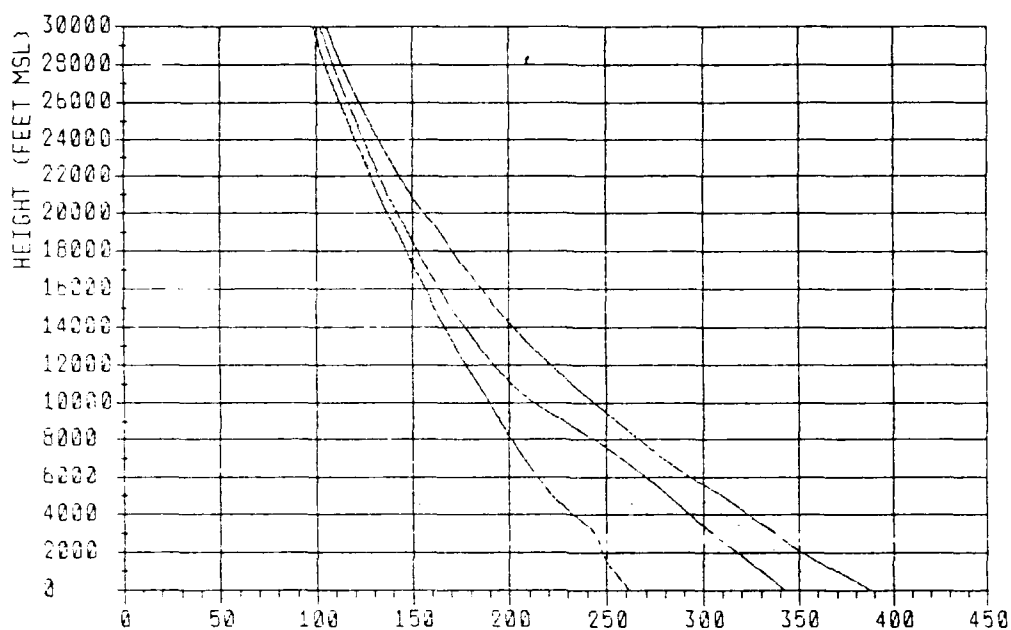
BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10X	50X	90X		10X	50X	90X		10X	50X	90X		10X	50X	90X
SPC-800	8.8	82	259	478	19.3	98	394	888	92.2	398	3114	15833	31.9	197	358	554
800-1000	2.8	98	443	888	6.8	98	394	1378	14.3	98	3199	8878	1.7	98	295	837
1000-1800	4.3	98	492	888	5.8	98	394	1171	5.8	98	2313	11784	1.4	98	591	1083
1800-2000	5.8	187	492	888	6.3	98	394	1083	7.6	98	3101	11488	2.0	187	888	1919
2000-2800	4.8	187	492	888	7.1	98	295	888	8.7	98	2859	8288	2.4	98	591	1280
2800-3000	6.2	187	492	888	9.7	98	394	884	11.7	98	1873	32219	4.5	98	738	1800
3000-3800	4.3	187	394	888	6.5	98	394	884	11.4	98	1722	24722	3.2	98	787	1585
3800-4000	4.0	187	394	591	6.0	98	394	787	8.0	98	1378	31431	4.2	98	787	1181
4000-4800	3.4	98	295	591	6.0	98	394	888	9.7	98	2185	31018	5.7	98	888	984
4800-8000	7.9	187	295	492	7.2	98	295	888	17.3	98	3002	30348	5.5	98	492	1578
8000-8000	8.3	187	295	492	13.8	98	394	888	24.1	98	5905	28857	7.1	98	591	1811
8000-7000	8.2	98	295	492	10.0	98	295	888	18.8	98	3543	28774	5.7	98	591	1878
7000-8000	7.6	98	295	492	11.5	98	295	881	17.8	98	6990	27888	4.9	98	888	1988
8000-9000	4.8	98	295	492	7.6	98	187	492	14.8	98	8153	26904	5.7	98	787	1808
9000-10000	4.9	98	187	394	6.8	98	295	492	10.8	98	2185	28821	7.0	98	492	984
10000-11000	5.4	98	187	394	6.2	98	187	482	18.4	207	8777	24938	5.3	98	591	1102
11000-12000	2.7	98	187	295	4.8	98	187	394	8.5	98	10387	21852	3.8	98	492	1240
12000-13000	2.2	98	98	295	3.8	98	187	394	7.6	98	22179	22888	3.5	98	492	1288
13000-14000	1.4	98	148	295	2.9	98	187	295	6.2	315	20988	21884	2.7	98	492	1043
14000-18000	1.4	98	98	197	2.3	98	187	295	5.3	98	17844	20703	2.8	98	394	888
18000-18000	0.9	98	98	187	1.4	98	98	187	3.8	98	5774	19888	1.8	98	295	819
18000-17000	0.8	98	184	184	0.9	98	184	315	3.3	838	18209	18832	2.6	181	528	987
17000-18000	0.5	184	184	184	0.4	184	184	328	2.8	984	17225	17717	1.8	184	328	787
18000-19000	0.8	184	184	184	0.7	184	184	312	5.8	3168	18078	18733	4.1	184	328	888
19000-20000	0.1	184	184	184	0.1	184	248	328	1.0	3412	15082	15748	1.0	184	410	738

1200Z

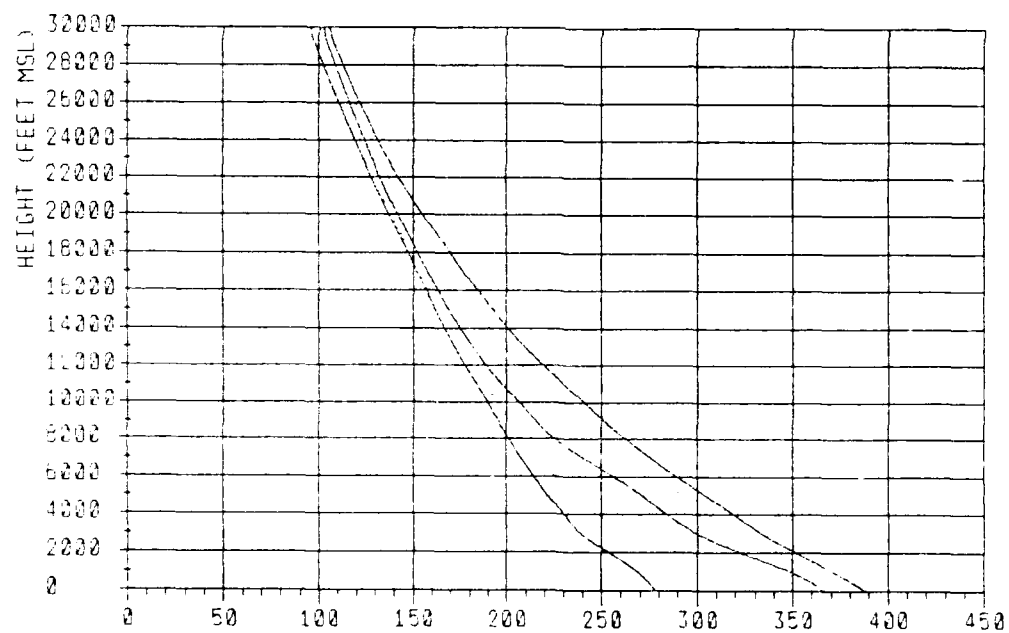
FIGURE B-1-3-D

B-14

N PERCENTILES



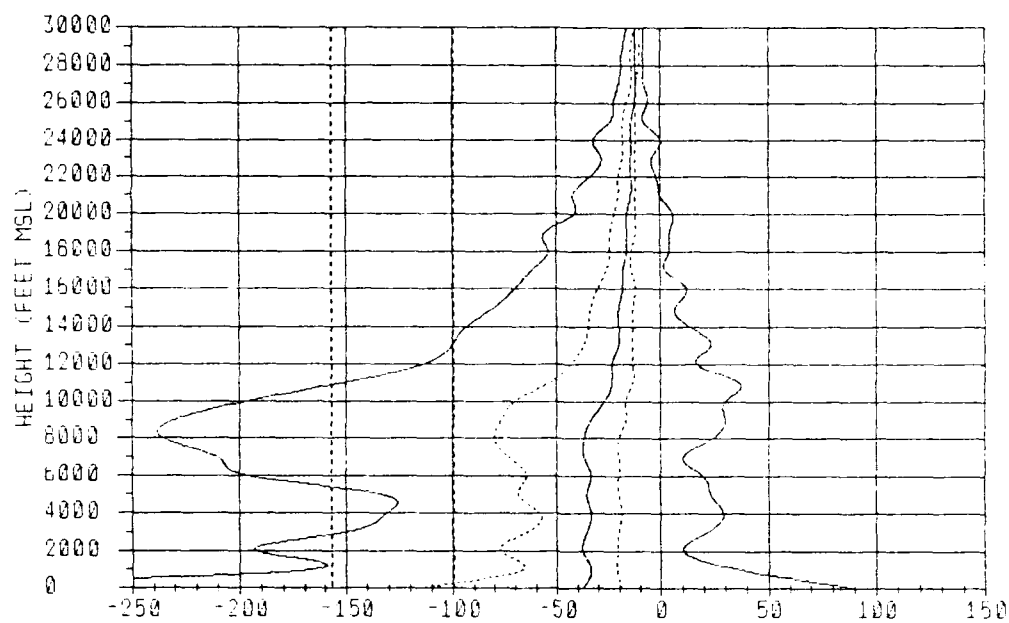
N (N-Units) 0000Z



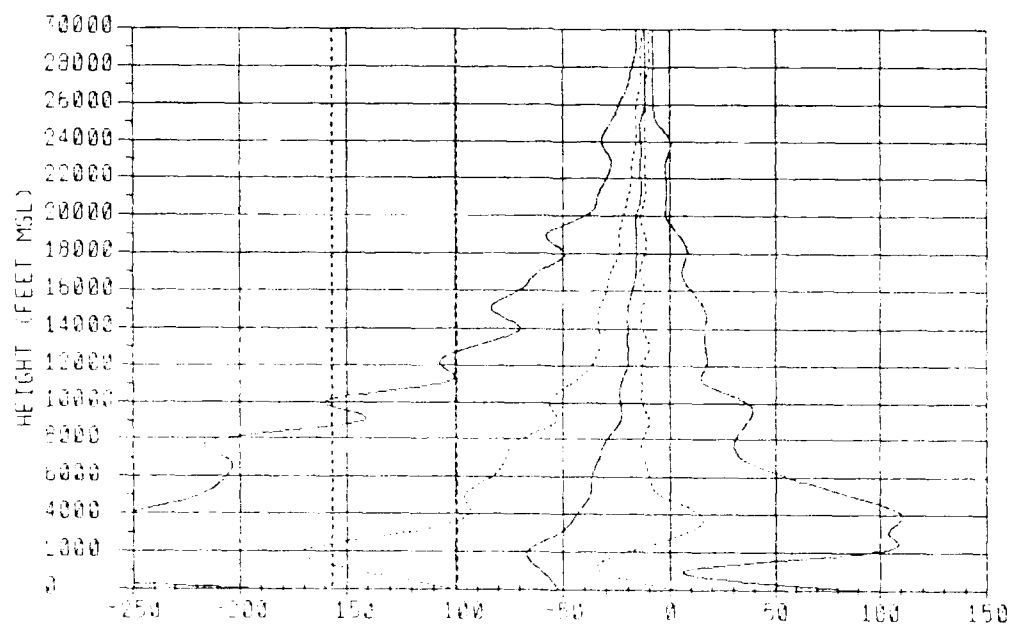
N (N-Units) 1200Z

FIGURE B-1-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-1-4-B

MERIDA

DRY-WET TRANSITION

HGT FT MSL	N PERCENTILES				DWDH PERCENTILES				PERCENT DUOT		OCCURRENCE SRLR		
	1%	10%	50%	90%	1%	10%	50%	90%				SUB	
500-1000	188.80	320.88	348.00	370.18	388.81	-814.82	-200.00	-80.00	-18.88	211.78	38.1	31.2	12.8
500-1000	180.18	311.72	339.88	360.58	382.94	-138.04	-88.33	-33.33	-18.78	24.48	0.8	2.8	2.4
1000-1500	278.53	308.88	334.18	354.88	373.58	-141.88	-80.41	-33.33	-20.88	22.81	1.4	4.2	2.8
1500-2000	273.22	302.38	328.13	347.78	363.87	-179.18	-78.00	-33.33	-20.83	41.14	3.3	8.8	2.8
2000-2500	249.83	286.04	321.28	341.18	354.87	-214.04	-79.18	-37.80	-22.81	8.33	3.8	8.8	2.4
2500-3000	247.88	289.82	313.88	332.78	348.08	-188.71	-78.00	-37.80	-20.83	18.88	4.2	8.8	3.8
3000-3500	249.28	283.30	308.88	328.80	338.83	-180.00	-88.88	-37.80	-20.88	28.00	1.7	4.2	4.2
3500-4000	243.42	278.08	300.88	318.08	328.88	-181.88	-82.80	-38.41	-20.83	20.83	1.4	3.0	4.4
4000-4500	238.38	272.48	288.00	312.88	323.88	-118.78	-88.33	-38.41	-18.78	31.28	0.8	1.7	4.8
4500-5000	230.48	267.24	288.18	307.00	318.08	-180.00	-80.41	-38.41	-18.88	38.41	2.8	4.1	7.8
5000-6000	221.80	254.88	280.38	298.18	307.88	-131.28	-88.88	-38.41	-18.78	23.30	2.2	8.4	4.2
6000-7000	214.10	238.77	268.00	282.88	291.88	-210.00	-88.12	-33.33	-20.88	14.88	8.4	7.2	3.8
7000-8000	207.40	224.40	258.78	270.88	278.50	-208.84	-78.88	-37.80	-20.88	10.03	7.7	11.0	3.8
8000-9000	200.80	211.30	241.10	258.18	268.00	-230.14	-79.88	-38.71	-18.82	23.31	10.1	14.8	8.1
9000-10000	194.20	201.80	223.80	248.00	252.80	-228.32	-73.43	-33.33	-18.88	33.33	8.0	13.8	8.8
10000-11000	188.40	194.00	208.50	232.80	241.08	-188.88	-88.88	-28.88	-13.41	28.88	7.7	11.1	8.0
11000-12000	182.20	188.80	198.80	220.80	228.70	-138.72	-80.00	-23.30	-18.88	23.42	3.8	8.8	8.8
12000-13000	178.50	180.40	190.40	208.71	218.48	-110.02	-39.87	-20.88	-13.28	18.88	2.2	3.8	8.3
13000-14000	170.70	174.10	182.70	198.88	208.80	-88.81	-38.71	-20.88	-13.28	20.88	1.7	3.8	8.8
14000-15000	165.21	168.30	178.40	180.87	198.30	-88.88	-33.33	-20.88	-13.28	13.28	1.0	2.2	8.8
15000-16000	160.10	162.80	168.50	182.30	181.00	-73.43	-30.07	-18.82	-13.28	8.77	0.7	1.8	4.8
16000-17000	155.20	158.20	162.80	174.88	183.80	-88.02	-28.88	-17.88	-13.28	12.38	0.4	1.0	4.8
17000-18000	150.34	152.30	158.40	167.20	178.70	-81.18	-28.01	-17.88	-13.88	3.88	0.8	0.7	3.8
18000-19000	148.00	148.70	150.80	160.10	168.20	-88.04	-24.08	-18.01	-12.03	8.87	1.4	0.8	4.2
19000-20000	140.10	141.80	148.20	153.10	160.80	-47.88	-23.88	-18.01	-13.88	0.00	0.2	0.0	2.7
20000-21000	135.80	137.30	140.50	147.00	153.20	-40.00	-21.88	-18.01	-12.03	8.02	0.0	0.3	3.8
21000-22000	131.30	132.80	138.80	141.80	147.40	-38.00	-20.00	-14.08	-12.03	-3.88	0.0	0.2	1.4
22000-23000	128.80	128.80	131.48	138.10	141.40	-30.00	-18.04	-13.88	-11.88	-2.03	0.0	0.0	1.8
23000-24000	122.30	124.00	128.80	131.20	135.80	-28.03	-17.88	-13.88	-11.88	-2.03	0.0	0.0	2.3
24000-25000	118.10	119.80	122.40	128.10	129.80	-27.88	-17.88	-13.88	-11.88	-2.03	0.0	0.3	3.0
25000-26000	114.10	116.00	118.40	121.50	124.40	-22.03	-18.01	-13.88	-11.88	-7.87	0.0	0.0	0.8
26000-27000	110.30	112.20	114.80	117.20	118.70	-20.00	-18.84	-12.03	-11.88	-8.02	0.0	0.0	0.8
27000-28000	108.18	108.20	110.40	112.80	118.30	-18.04	-14.08	-12.03	-10.00	-7.87	0.0	0.0	1.1
28000-29000	102.82	104.80	108.80	108.80	110.40	-18.04	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.8
29000-30000	98.30	101.20	103.00	104.80	108.30	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.8
30000-31000	98.03	97.80	98.80	101.20	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
31000-32000	92.80	94.80	98.20	97.80	98.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
32000-33000	88.40	91.00	92.70	94.40	95.40	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	88.30	87.80	88.20	90.70	91.40	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	84.08	85.80	88.70	87.70	88.40	-20.00	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

0000Z

HGT FT MSL	N PERCENTILES					DMDH PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
500-1000	322.50	348.54	370.88	381.78	388.48	-181.34	-108.33	-47.81	22.81	184.71	8.3	20.8	33.3
1000-1500	281.07	340.00	383.88	374.18	383.88	-181.48	-91.88	-84.18	-18.78	47.81	3.1	9.1	10.8
1500-2000	285.78	310.98	354.88	358.38	363.50	-278.38	-118.88	-88.33	-31.28	12.80	8.8	13.2	1.8
2000-2500	268.74	300.41	328.75	345.80	354.12	-388.88	-183.33	-88.88	-28.88	78.84	21.2	25.3	3.1
2500-3000	253.80	282.58	314.00	334.75	343.75	-337.44	-182.50	-84.88	-10.42	110.28	18.7	31.7	13.2
3000-3500	240.08	288.81	302.08	324.80	333.88	-307.88	-122.81	-84.18	8.28	100.00	10.8	20.8	18.8
3500-4000	238.80	288.00	294.08	318.00	328.88	-338.88	-108.33	-80.00	10.42	100.00	7.8	13.8	17.7
4000-4500	231.42	249.40	288.50	308.17	320.38	-241.88	-88.83	-43.78	12.80	82.87	8.3	11.4	18.0
4500-5000	227.20	241.40	288.88	300.88	313.54	-288.88	-85.83	-41.88	12.80	128.00	8.4	13.4	21.3
5000-6000	220.80	234.30	288.08	290.04	302.17	-204.18	-85.83	-37.50	-8.28	77.08	10.0	17.2	14.2
6000-7000	213.80	224.40	254.30	278.88	287.88	-208.84	-81.28	-38.41	-10.03	80.00	7.8	13.1	10.4
7000-8000	207.31	218.00	238.80	264.80	274.74	-208.88	-79.88	-33.33	-13.28	38.21	8.8	13.8	8.8
8000-9000	200.82	207.80	223.80	251.00	261.80	-193.38	-88.88	-28.88	-13.28	33.33	8.8	11.4	8.2
9000-10000	194.20	200.10	213.20	238.20	248.80	-143.38	-83.25	-23.44	-8.80	42.80	3.7	8.1	8.1
10000-11000	188.40	193.30	204.20	227.50	238.80	-153.48	-88.84	-23.30	-13.28	23.30	8.8	7.0	11.3
11000-12000	182.20	188.40	194.80	218.10	228.80	-108.77	-43.38	-23.30	-13.28	18.82	2.8	3.7	8.8
12000-13000	178.40	180.10	187.40	208.00	218.80	-88.74	-38.71	-20.88	-10.03	20.88	1.4	3.1	8.8
13000-14000	170.70	173.80	180.20	188.38	207.18	-80.88	-33.33	-20.88	-13.28	18.88	1.1	2.8	8.1
14000-15000	165.20	168.20	173.50	188.00	198.10	-78.88	-33.33	-18.82	-13.28	18.88	1.1	1.8	4.8
15000-16000	160.30	162.70	167.30	178.88	188.80	-83.10	-30.07	-18.82	-13.28	10.03	1.3	2.4	4.2
16000-17000	155.40	157.50	161.70	172.80	182.20	-70.00	-28.88	-17.88	-13.28	8.81	1.3	0.8	4.1
17000-18000	150.80	152.20	158.80	165.80	174.20	-84.78	-28.01	-18.01	-12.03	8.02	0.3	0.3	3.7
18000-19000	145.20	148.70	150.80	158.70	167.00	-88.38	-24.08	-18.01	-2.03	8.08	0.8	1.3	4.8
19000-20000	140.40	141.80	144.80	151.80	158.81	-88.01	-23.88	-18.01	-13.88	0.00	0.0	0.8	4.8
20000-21000	135.80	137.30	140.10	145.80	152.32	-40.00	-21.88	-18.01	-12.03	-2.03	0.0	0.0	1.4
21000-22000	131.30	132.80	138.80	140.48	148.50	-33.88	-20.00	-14.08	-11.88	-2.03	0.1	0.1	1.7
22000-23000	128.80	128.80	131.20	135.80	140.48	-30.00	-18.04	-13.88	-11.88	-2.03	0.0	0.0	1.8
23000-24000	121.82	124.00	128.80	130.80	134.70	-27.88	-17.88	-13.88	-11.88	-1.88	0.0	0.1	2.3
24000-25000	117.10	119.80	122.30	125.70	128.88	-31.88	-18.01	-13.88	-11.88	-3.88	0.0	0.3	2.8
25000-26000	112.80	116.00	119.20	121.20	124.00	-28.01	-18.01	-13.88	-11.88	-8.02	0.0	0.0	0.7
26000-27000	108.70	112.10	114.30	118.80	119.40	-22.03	-18.84	-12.03	-11.88	-7.87	0.0	0.0	0.4
27000-28000	104.37	108.20	110.20	112.80	114.80	-20.00	-14.08	-12.03	-10.00	-7.87	0.0	0.0	0.8
28000-29000	100.20	104.40	108.30	108.30	110.10	-17.88	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.3
29000-30000	98.30	101.10	102.80	104.70	108.20	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.0
30000-31000	92.80	97.80	98.80	101.20	102.40	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.4
31000-32000	88.40	91.00	92.70	94.40	98.80	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.3
32000-33000	88.30	87.80	88.20	90.70	95.38	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	84.08	87.70	88.20	88.80	91.40	-22.75	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	79.90	85.50	88.80	87.70	88.30	-17.88	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SPC-800	38.1	82	181	388	31.2	98	197	388	98.1	1882	8083	34878	12.9	98	259	884
800-1000	0.0					98	197	2284	2.4	98	3101	34329	0.3	98	98	98
1000-1800	1.2	98	394	888	1.1	98	298	787	2.8	98	3838	34089	1.4	98	840	2087
1800-2000	2.7	187	482	888	4.8	98	298	880	3.9	98	7283	33322	1.1	98	591	3248
2000-2800	2.3	187	288	881	3.8	98	384	1033	8.0	738	7778	32888	0.8	889	1280	1478
2800-3000	2.7	187	384	888	4.8	98	298	1083	5.9	187	8498	32813	2.1	98	889	1280
3000-3800	0.8	187	298	482	2.3	98	98	831	3.8	98	2853	18083	1.5	98	298	1742
3800-4000	1.2	187	344	787	1.8	98	248	1818	3.8	98	1328	31859	2.0	98	1181	1854
4000-4800	0.8	98	482	482	0.8	384	394	984	2.9	98	187	8841	1.8	98	841	1033
4800-8000	2.8	98	187	888	3.8	98	394	1132	7.8	1388	13882	30280	4.0	98	889	2284
8000-8000	1.4	108	344	881	2.8	98	344	778	8.2	318	7874	28848	1.3	98	148	1870
8000-7000	8.8	98	384	881	8.2	98	298	888	7.2	98	4330	28872	2.2	98	384	1171
7000-6000	8.8	187	288	482	8.7	98	298	840	11.1	98	7878	27780	2.2	98	840	2274
6000-8000	8.1	187	288	482	12.8	98	298	482	14.8	98	28118	27002	3.8	98	837	1808
8000-10000	8.8	177	288	384	10.8	98	298	482	13.8	384	28181	28919	3.8	98	881	1024
10000-11000	7.2	98	187	384	8.8	98	187	482	18.8	888	18837	24838	5.3	187	888	1280
11000-12000	3.3	98	187	384	8.2	98	298	384	10.0	187	18888	23881	3.8	98	591	1083
12000-13000	2.0	98	187	248	3.2	98	187	443	8.2	98	8433	22770	3.3	98	482	1488
13000-14000	1.7	98	148	288	2.8	98	187	384	7.2	98	8348	21884	4.3	98	881	1083
14000-18000	1.0	98	98	187	1.7	98	187	384	8.9	98	8380	20804	3.8	98	482	1083
18000-18000	0.7	98	98	187	1.4	98	98	278	4.8	98	15308	18888	2.7	98	482	1240
18000-17000	0.4	131	131	184	1.0	131	184	230	4.1	238	18208	18701	3.0	184	478	722
17000-18000	0.8	184	184	482	0.7	184	328	328	3.0	488	17388	17717	2.2	184	328	1840
18000-19000	1.3	184	184	184	0.7	184	184	328	5.8	187	18812	18700	3.6	184	328	888
19000-20000	0.2	184	184	184	0.0				2.1	1842	18082	18748	2.1	410	482	802

0000Z

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SPC-800	8.3	82	187	888	20.8	98	298	888	93.8	388	1888	12800	33.3	181	388	881
800-1000	2.1	98	881	1132	4.0	98	881	1388	12.2	98	1478	7874	1.8	98	443	1427
1000-1800	7.8	187	881	888	8.2	98	881	1378	5.3	98	1818	33823	0.8	881	837	1378
1800-2000	13.8	187	881	838	18.8	98	482	1280	7.2	98	1888	33400	1.8	217	787	1888
2000-2800	11.3	177	881	888	17.8	98	384	1181	13.8	98	2481	32808	8.3	298	888	1888
2800-3000	7.7	187	482	787	18.1	98	482	888	18.4	98	1888	27481	7.0	288	888	1870
3000-3800	8.4	187	384	888	8.8	98	298	888	20.8	98	1821	31828	7.2	384	884	1772
3800-4000	4.8	217	482	888	8.3	98	298	787	12.8	98	1821	31333	8.0	98	888	1308
4000-4800	3.4	138	482	787	8.4	98	187	820	12.7	98	1427	31038	7.2	288	591	1447
4800-8000	7.0	187	288	881	10.8	98	298	728	21.2	187	3248	30280	7.3	187	888	1848
8000-8000	8.3	187	288	802	12.1	98	384	787	24.2	98	4428	28788	7.3	98	541	1848
8000-7000	8.8	98	288	482	10.4	98	288	888	18.8	98	4134	28774	4.8	98	840	1478
7000-8000	7.7	98	288	482	10.7	98	384	888	14.8	98	4428	27780	2.8	98	384	1873
6000-8000	4.8	98	288	482	8.2	98	288	581	14.8	138	7877	28882	5.8	98	888	1478
8000-10000	3.1	98	288	483	3.8	98	187	581	8.8	98	1878	28743	8.0	98	881	984
10000-11000	8.4	98	98	288	8.3	98	288	482	18.8	325	13288	24838	5.8	98	384	1308
11000-12000	2.4	98	187	384	2.8	98	187	384	8.8	98	23088	23882	4.4	98	482	1280
12000-13000	1.1	98	98	187	3.0	98	187	384	8.3	98	8302	22888	4.2	98	482	1280
13000-14000	1.1	98	98	98	2.3	98	187	384	5.8	98	20888	21718	3.0	98	384	984
14000-18000	1.1	98	98	187	1.8	98	187	384	4.8	810	20112	20888	3.8	98	738	1083
18000-18000	1.3	98	98	98	2.3	98	187	288	5.8	787	18028	18787	2.3	98	384	1184
18000-17000	1.3	98	131	184	0.8	98	184	184	3.8	807	18373	18831	2.8	138	482	984
17000-18000	0.3	184	184	184	0.3	184	184	184	3.2	1842	17081	17881	2.7	184	888	1148
18000-19000	0.8	184	184	184	1.3	184	184	328	8.1	1840	18078	18733	3.9	184	328	820
19000-20000	0.0				0.8	184	184	184	2.0	1247	18082	18748	1.3	184	888	820

1200Z

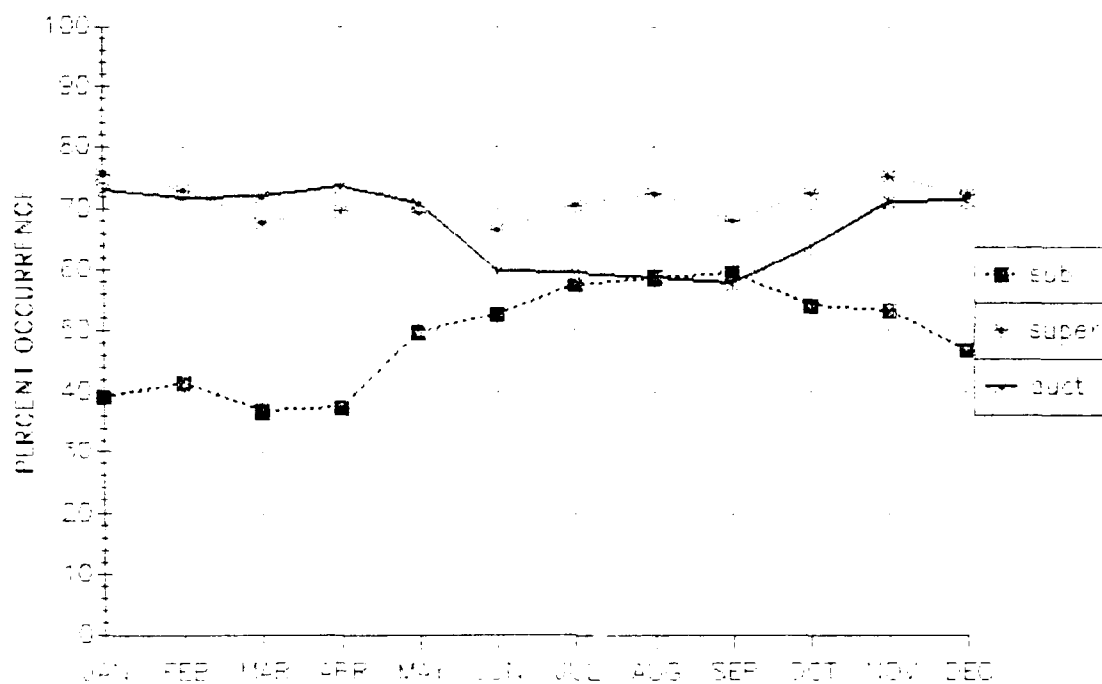
FIGURE B-1-4-D

B-18

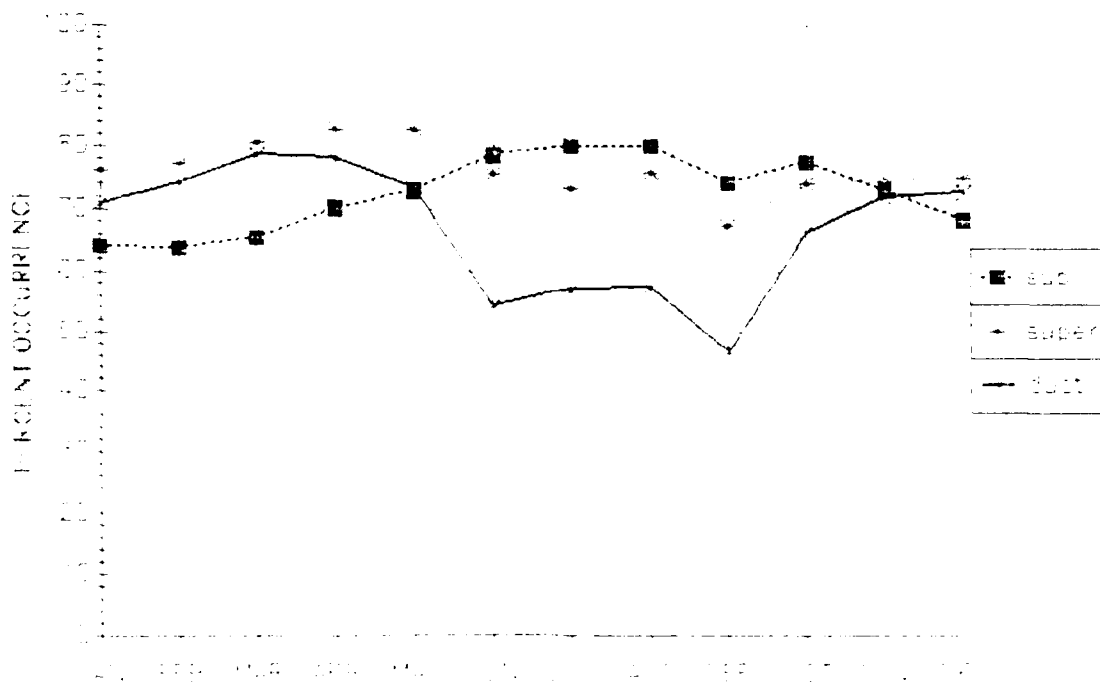
MERIDA

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY



0000Z

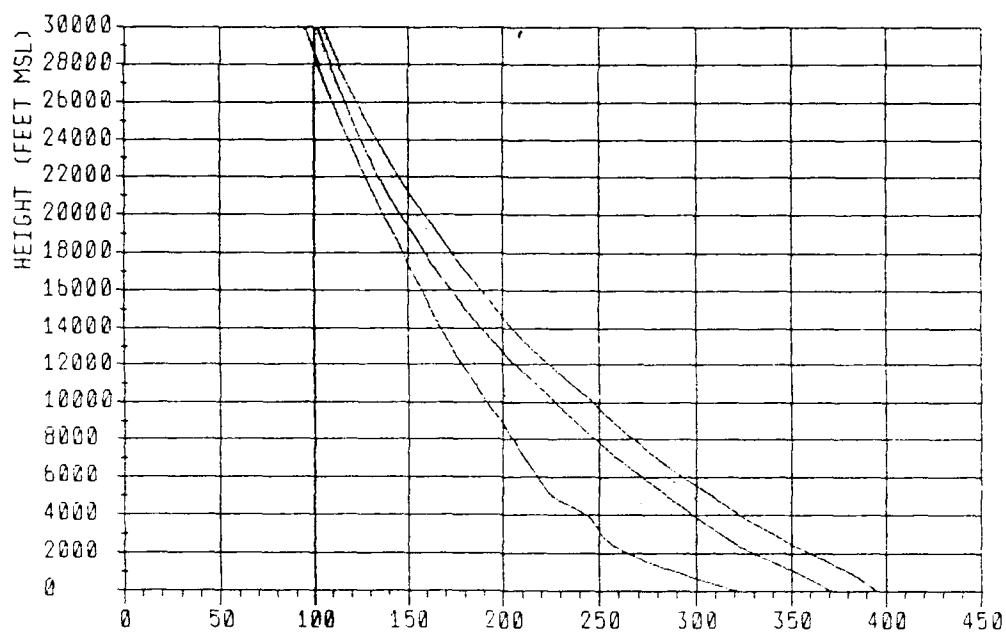


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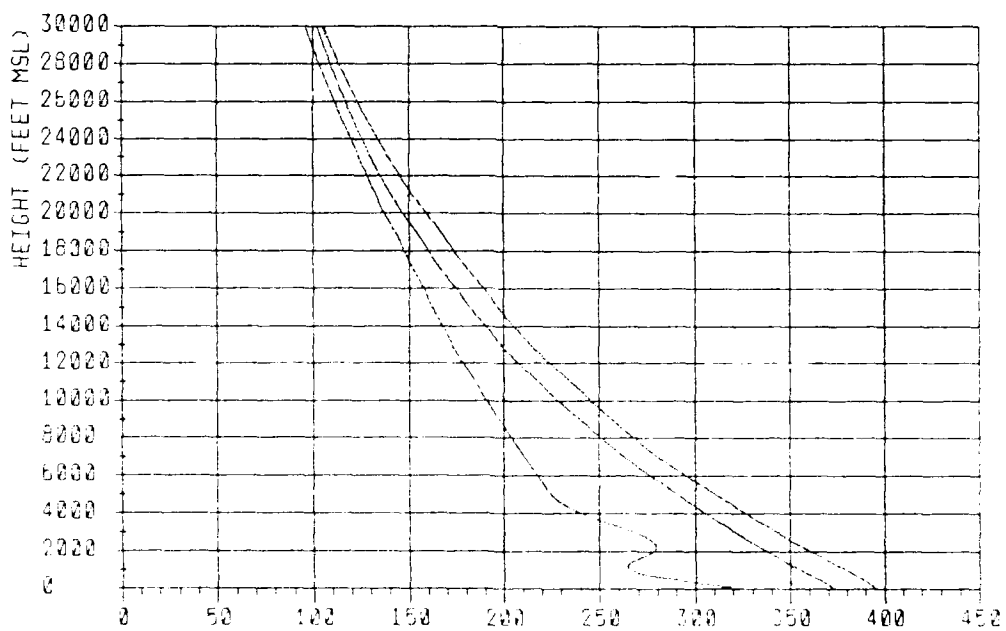
FIGURE B-1-5

B-19

N PERCENTILES



N (N-Units) 0000Z



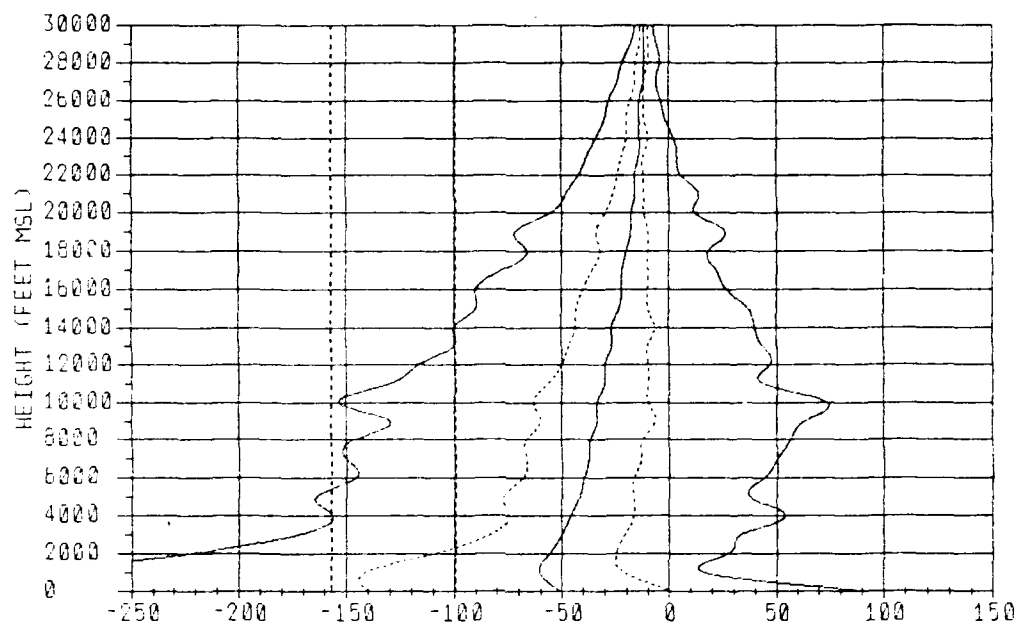
N (N-Units) 1200Z

FIGURE B-2-1-A

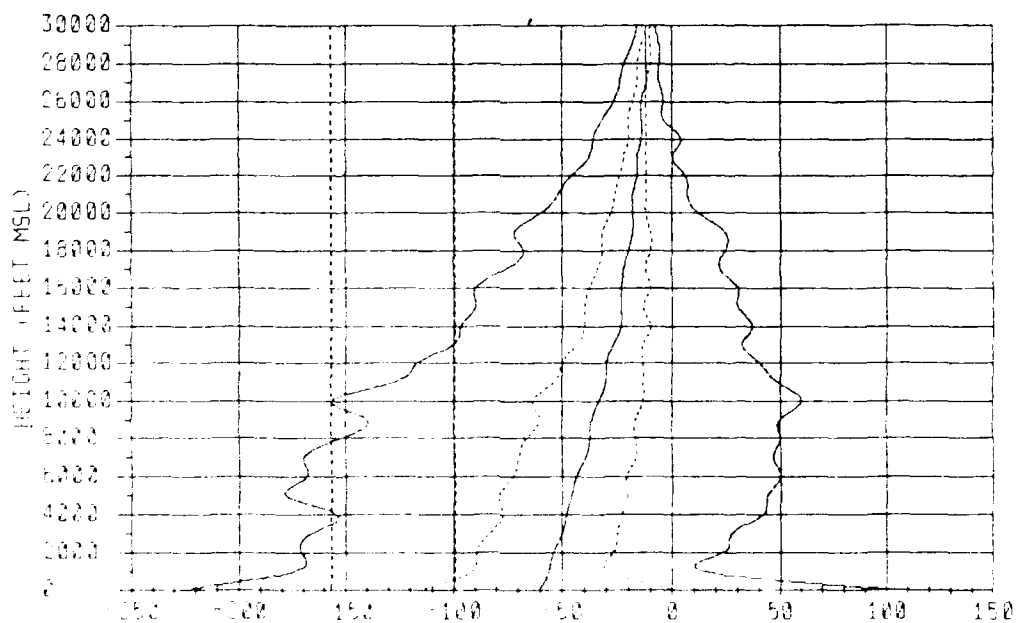
VERACRUZ

WET SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-2-1-B

VERACRUZ

WET SEASON

HOT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT DUCT	OCCURRENCE	
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%		SRLR	SUB
87C-800	340.13	364.50	377.75	388.88	399.48	-359.73	-188.78	-80.41	18.68	147.62	25.7	38.0	28.8
800-1000	309.77	355.89	368.69	381.00	391.91	-222.91	-114.68	-46.83	0.00	80.00	8.1	18.8	12.3
1000-1800	301.84	341.78	360.00	373.88	383.01	-300.88	-180.00	-82.50	-18.68	18.68	13.7	28.8	4.9
1800-2000	279.07	327.78	347.72	364.00	375.08	-281.44	-137.80	-68.68	-27.08	18.68	12.4	28.2	3.8
2000-2800	272.13	317.25	338.08	352.88	362.78	-239.58	-122.81	-80.41	-27.08	22.91	7.4	18.0	3.6
2800-3000	267.42	308.72	328.78	341.58	352.08	-183.33	-100.00	-64.18	-25.00	28.18	4.3	12.4	4.2
3000-3500	281.87	288.80	318.80	331.38	341.78	-180.00	-83.33	-50.00	-22.91	33.33	2.0	8.8	5.5
3500-4000	248.37	281.28	308.78	323.25	333.08	-148.18	-77.08	-47.81	-20.83	38.60	1.8	4.8	9.1
4000-4800	248.48	284.88	301.78	315.88	324.38	-188.82	-72.81	-48.83	-20.83	40.12	1.8	3.8	9.0
4800-8000	241.24	277.08	294.78	308.38	317.88	-184.48	-72.81	-43.78	-18.78	82.81	2.6	5.7	7.9
8000-8000	224.82	284.88	284.00	287.88	307.80	-150.00	-77.08	-41.88	-18.78	38.41	3.8	7.3	7.9
8000-7000	217.20	280.00	270.78	283.88	291.78	-137.80	-68.68	-38.88	-18.88	43.14	2.4	8.7	8.8
7000-8000	211.20	287.80	288.88	271.78	278.38	-141.88	-68.68	-37.80	-12.80	50.00	2.8	6.2	10.4
8000-9000	204.47	228.30	248.70	289.58	288.88	-133.33	-68.00	-38.88	-10.03	50.00	2.6	7.2	14.8
9000-10000	197.31	218.40	238.70	247.80	254.40	-118.68	-68.64	-33.33	-8.64	60.02	1.3	4.8	18.8
10000-11000	189.70	208.20	228.30	237.30	244.40	-143.38	-83.28	-33.33	-10.03	60.02	4.3	7.3	17.2
11000-12000	183.00	194.80	214.70	228.10	232.70	-118.82	-83.38	-30.07	-10.03	43.38	2.6	4.8	13.2
12000-13000	177.40	185.70	208.10	215.80	221.70	-113.28	-83.38	-28.88	-10.03	50.00	2.1	4.3	13.6
13000-14000	171.70	178.30	198.00	208.70	212.20	-98.81	-48.81	-28.88	-10.03	38.97	1.3	3.8	12.7
14000-18000	168.21	171.80	187.30	187.80	202.80	-83.38	-43.38	-28.88	-8.64	38.71	1.1	3.2	12.8
18000-18000	161.10	185.80	178.40	189.70	194.30	-89.87	-38.87	-23.30	-8.80	28.88	1.0	2.8	11.1
18000-17000	158.10	188.80	172.00	182.28	188.70	-80.00	-37.88	-22.48	-10.00	27.24	0.8	2.1	10.9
17000-18000	180.88	184.00	184.80	174.00	178.30	-68.04	-33.88	-17.88	-10.00	18.80	0.8	1.2	8.8
18000-19000	148.30	148.30	157.80	168.30	170.81	-77.87	-32.03	-20.00	-8.08	23.88	2.1	1.8	13.2
19000-20000	140.20	142.80	150.70	158.80	162.80	-68.04	-32.03	-18.04	-11.88	18.01	0.3	0.8	7.4
20000-21000	138.80	138.00	144.80	152.00	155.80	-50.00	-27.88	-17.88	-11.88	18.88	0.4	0.4	7.9
21000-22000	130.80	133.40	138.00	148.80	149.30	-47.87	-28.01	-17.88	-11.88	10.00	0.3	0.1	8.0
22000-23000	128.10	128.80	133.70	140.00	143.20	-41.82	-23.88	-18.01	-11.88	4.08	0.1	0.2	4.0
23000-24000	121.10	124.20	128.80	133.80	137.30	-38.01	-21.88	-18.84	-11.88	1.88	0.1	0.1	4.3
24000-28000	118.40	118.80	123.80	128.10	130.80	-33.88	-20.00	-13.88	-10.00	3.88	0.2	0.4	4.4
28000-28000	112.10	118.00	118.00	123.00	128.50	-30.00	-18.04	-13.88	-11.88	-3.88	0.0	0.3	1.8
28000-27000	108.08	112.20	114.80	118.28	120.48	-28.01	-17.88	-13.88	-11.88	-3.88	0.0	0.0	1.9
27000-28000	103.77	108.00	110.80	113.80	118.80	-22.03	-18.01	-12.03	-10.00	-8.84	0.0	0.1	1.2
28000-29000	98.74	104.40	108.80	108.80	110.80	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.8
29000-30000	88.13	101.00	102.80	108.00	108.40	-17.88	-13.88	-11.88	-10.00	-7.97	0.0	0.0	0.2
30000-31000	82.70	87.80	88.80	101.30	102.80	-18.01	-12.03	-11.88	-10.00	-7.97	0.0	0.0	0.3
31000-32000	88.30	84.80	88.10	87.80	89.00	-27.88	-12.03	-10.00	-10.00	-8.02	0.0	0.0	1.3
32000-33000	88.70	91.00	92.80	94.30	95.30	-13.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
33000-34000	82.48	87.80	88.30	80.80	81.40	-20.00	-11.88	-10.00	-8.08	-7.97	0.0	0.0	0.3
34000-38000	80.10	85.80	88.70	87.70	88.30	-24.08	-11.88	-10.00	-7.97	-7.97	0.0	0.0	0.0

0000Z

HOT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT DUCT	OCCURRENCE	
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%		SRLR	SUB
87C-800	383.80	388.08	381.00	380.28	399.28	-280.19	-137.80	-88.33	38.78	131.28	18.2	28.2	33.0
800-1000	331.53	355.38	370.28	382.88	393.08	-208.28	-104.18	-80.41	-29.18	27.08	8.8	11.8	4.8
1000-1800	320.80	348.80	381.18	372.78	383.08	-188.68	-81.88	-88.33	-29.18	27.08	2.8	10.2	3.8
1800-2000	308.88	337.18	382.18	383.38	372.80	-183.33	-83.78	-88.28	-30.80	8.33	3.8	10.0	2.9
2000-2800	282.28	328.00	343.28	354.38	382.80	-177.88	-91.88	-88.28	-27.08	20.83	3.2	9.7	4.3
2800-3000	280.24	318.58	333.88	348.08	383.50	-182.80	-87.50	-84.18	-27.08	22.81	2.8	8.8	5.5
3000-3500	281.88	308.78	324.88	338.88	343.43	-183.08	-83.33	-82.08	-27.08	27.08	2.2	8.8	5.0
3500-4000	271.31	302.00	317.00	327.80	338.81	-184.18	-77.08	-80.00	-27.08	22.81	1.8	4.8	3.7
4000-4800	288.08	283.80	309.28	319.88	327.58	-142.41	-77.08	-80.00	-25.00	27.08	1.4	8.8	4.3
4800-8000	288.83	288.38	301.78	312.28	320.08	-170.83	-77.08	-47.81	-22.81	48.73	2.7	7.3	8.8
8000-8000	224.80	272.78	290.08	301.88	310.18	-172.81	-77.08	-48.83	-20.83	41.88	4.8	8.8	8.2
8000-7000	218.80	287.18	278.00	288.78	293.58	-188.37	-70.08	-43.78	-20.83	47.88	3.8	7.1	8.8
7000-8000	210.30	242.80	283.08	273.78	280.08	-184.18	-88.82	-38.88	-18.82	40.18	3.4	8.8	8.7
8000-9000	203.80	228.30	250.30	281.08	287.08	-183.38	-83.41	-37.50	-18.88	50.00	3.7	8.8	8.8
9000-10000	198.70	218.80	238.20	248.80	254.40	-123.30	-88.88	-38.88	-18.88	48.81	2.3	8.1	10.1
10000-11000	188.80	203.78	227.08	237.88	243.80	-140.10	-80.02	-33.33	-13.28	48.74	4.3	8.8	14.2
11000-12000	183.40	183.80	218.80	227.00	232.80	-118.88	-80.00	-28.88	-13.28	43.38	1.9	8.2	10.8
12000-13000	177.40	184.80	208.80	218.70	221.93	-104.38	-48.74	-28.88	-13.28	33.33	1.8	4.0	10.4
13000-14000	171.80	177.40	187.80	207.80	212.80	-93.31	-43.38	-28.88	-10.03	28.88	0.8	3.4	10.8
14000-18000	168.10	171.00	188.70	188.00	203.10	-88.81	-38.87	-28.88	-10.03	38.81	1.8	3.0	10.2
18000-18000	161.10	185.10	181.80	181.10	194.80	-89.87	-38.87	-23.30	-10.03	30.07	1.8	2.8	10.9
18000-17000	158.10	188.80	174.00	183.70	187.20	-88.01	-37.80	-23.88	-11.88	27.88	1.4	2.8	9.9
17000-18000	181.10	183.80	188.30	175.40	178.80	-74.02	-33.88	-22.03	-11.88	24.02	0.3	1.2	8.8
18000-19000	148.30	148.20	188.30	187.80	171.40	-78.04	-31.88	-20.00	-10.00	30.00	2.2	2.3	11.9
19000-20000	140.70	143.00	182.20	180.00	183.20	-81.88	-30.00	-20.00	-11.88	12.03	0.3	0.8	8.4
20000-21000	138.80	138.20	148.80	153.30	158.30	-87.88	-27.88	-18.04	-12.03	10.14	0.4	0.8	8.8
21000-22000	131.80	133.80	140.00	148.80	148.70	-48.04	-28.01	-17.88	-11.88	7.97	0.3	0.8	8.7
22000-23000	127.17	128.10	134.80	140.80	143.40	-48.01	-23.88	-18.01	-11.88	7.97	0.0	0.8	8.0
23000-24000	122.40	124.40	128.10	134.80	137.41	-38.01	-20.00	-18.01	-11.88	0.00	0.1	0.1	4.0
24000-28000	117.83	120.10	124.10	128.80	131.10	-38.01	-20.00	-14.08	-11.88	3.88	0.2	0.7	4.2
28000-28000	118.82	118.20	118.40	123.70	128.70	-28.04	-18.04	-13.88	-11.88	-3.88	0.0	0.0	1.4
28000-27000	108.31	112.30	118.20	118.80	120.70	-28.01	-18.01	-13.88	-11.88	-3.88	0.0	0.1	1.4
27000-28000	108.20	108.20	110.80	114.10	118.80	-22.03	-18.01	-12.03	-10.00	-8.02	0.0	0.0	1.4
28000-29000	100.80	104.80	108.80	108.80	110.70	-18.04	-14.08	-12.03	-10.00	-8.02	0.0	0.1	1.8
29000-30000	87.10	101.20	103.10	108.30	108.80	-18.01	-13.88	-12.03	-10.00	-7.97	0.0	0.0	0.8
30000-31000	83.80	87.80	88.70	101.80	102.70	-18.01	-12.03	-11.88	-10.00	-7.97	0.0	0.0	0.3
31000-32000	80.18	84.80	88.20	88.80	89.00	-30.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.3
32000-33000	88.78	91.10	92.70	94.40	95.40	-13.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
33000-34000	83.20	88.00	89.30	90.70	91.50	-24.58	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
34000-38000	80.80	85.80	88.70	87.70	88.30	-28.01	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

VERACRUZ

WET SEASON

THICKNESS STATISTICS

BASE FT MSL	XFRQ	DUCTS THK PERCENTILES			XFRQ	SRLRS THK PERCENTILES			XFRQ	NORMAL THK PERCENTILES			XFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	25.7	98	293	351	38.0	98	293	591	91.8	293	1873	34878	28.8	154	351	688
500-1000	5.8	197	394	787	10.8	98	591	1181	10.8	98	840	18788	2.1	98	98	908
1000-1500	9.7	197	394	688	18.0	98	492	1181	12.2	98	3740	22553	1.8	98	293	1280
1500-2000	6.1	197	492	688	13.2	98	394	1181	19.3	328	8004	33302	2.0	98	591	1004
2000-2500	2.4	197	394	788	6.0	98	492	1181	14.0	98	5218	32809	1.4	98	492	2352
2500-3000	1.7	197	394	699	6.4	98	344	984	12.7	98	4360	32219	2.8	98	591	1791
3000-3500	1.1	98	293	848	2.5	98	344	935	6.7	98	3789	31796	3.0	98	443	1408
3500-4000	0.8	108	394	848	2.3	98	492	1073	5.8	98	1575	18452	2.8	98	394	1358
4000-4500	1.4	98	394	888	2.0	98	246	620	4.8	98	1878	30742	2.5	98	591	848
4500-5000	1.8	197	293	492	4.5	98	293	679	8.3	197	5020	30260	4.1	293	492	1791
5000-6000	2.8	98	293	591	5.7	98	293	787	13.7	98	4921	28532	6.1	98	492	1083
6000-7000	1.8	98	293	492	4.8	98	394	688	8.0	98	2382	28448	6.0	98	591	1260
7000-8000	2.4	98	293	591	6.3	98	293	591	11.2	98	2087	27199	7.4	98	492	1378
8000-9000	2.0	98	293	512	5.9	98	293	591	13.3	98	1969	26412	10.1	98	492	1181
9000-10000	1.2	98	197	323	4.0	98	293	591	11.7	98	1181	25693	9.8	98	492	888
10000-11000	4.0	98	197	394	6.6	98	293	492	19.1	98	3081	24738	10.4	98	492	1083
11000-12000	2.5	98	98	293	3.8	98	293	394	11.8	98	2087	23380	9.2	98	492	1260
12000-13000	1.8	98	98	293	4.0	98	197	394	12.0	98	2461	22804	9.0	98	492	1083
13000-14000	1.2	98	98	293	3.2	98	197	394	10.7	98	3101	21588	8.1	98	492	1083
14000-15000	1.0	98	98	293	2.7	98	197	384	12.8	98	3347	20506	8.4	98	394	787
15000-16000	0.9	98	98	197	2.4	98	197	305	9.8	98	3189	19521	6.4	98	394	919
16000-17000	0.9	141	164	164	1.7	98	184	328	8.4	203	3809	18837	7.8	164	492	1037
17000-18000	0.5	164	164	164	1.2	164	164	328	7.3	820	8577	17717	5.9	164	492	884
18000-19000	2.1	164	164	164	1.8	164	164	328	12.9	492	18912	18669	11.0	164	492	820
19000-20000	0.3	164	164	164	0.8	164	164	328	7.9	1312	18092	15748	5.4	164	410	884

0000Z

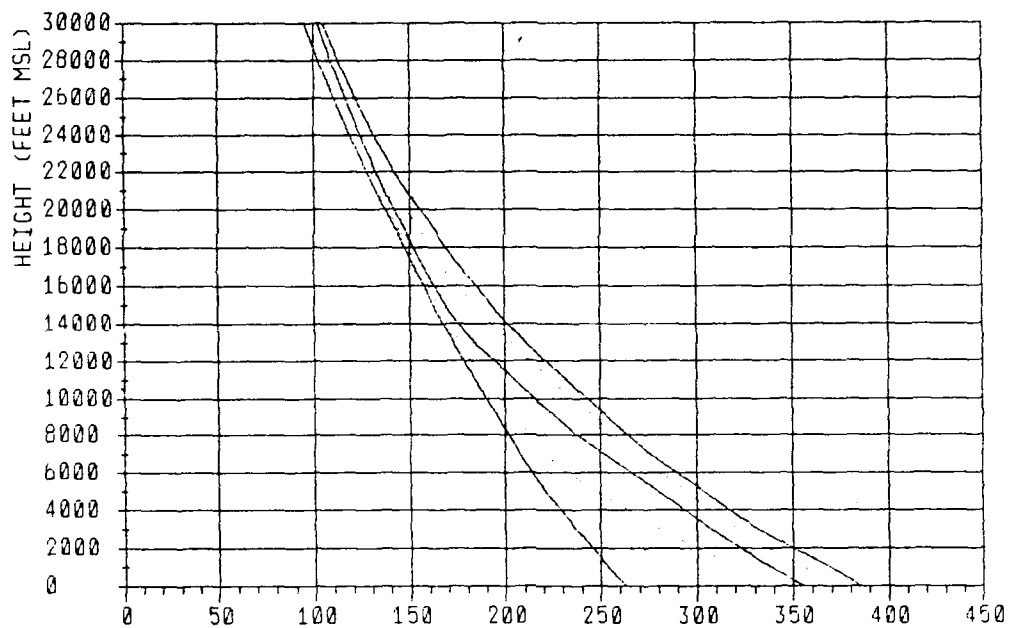
BASE FT MSL	XFRQ	DUCTS THK PERCENTILES			XFRQ	SRLRS THK PERCENTILES			XFRQ	NORMAL THK PERCENTILES			XFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	18.2	154	351	449	28.2	98	351	787	93.0	351	8892	35228	33.0	202	351	449
500-1000	0.7	98	293	1181	4.0	98	98	1142	10.9	98	5218	34483	2.4	98	394	1083
1000-1500	1.8	148	394	787	5.3	98	492	984	7.6	98	4724	33891	1.4	98	293	837
1500-2000	2.5	197	394	888	5.8	98	591	984	5.9	98	3838	22818	1.7	157	591	1298
2000-2500	1.7	128	293	758	4.4	98	492	984	6.8	98	2858	17798	2.4	187	591	1181
2500-3000	1.4	197	394	591	5.2	98	394	888	7.3	98	4038	22048	3.0	98	591	1142
3000-3500	1.4	98	344	600	2.8	98	394	888	7.4	98	2854	30139	2.3	98	394	1478
3500-4000	1.1	197	293	787	2.9	98	394	805	4.6	98	1870	31274	1.8	98	541	1152
4000-4500	1.0	197	293	748	3.8	98	492	787	4.3	98	2118	10298	2.4	325	591	1280
4500-5000	2.3	217	293	591	4.7	98	344	888	7.4	128	4429	30280	4.0	118	394	888
5000-6000	3.5	98	344	688	6.1	98	293	888	14.8	98	3180	28268	5.8	98	591	1122
6000-7000	2.6	167	293	591	6.1	98	293	688	8.8	98	2461	28479	5.8	98	492	1260
7000-8000	2.8	98	293	591	7.1	98	293	640	11.6	98	2858	27593	5.4	98	492	1152
8000-9000	3.4	98	197	404	6.9	98	293	591	13.1	98	2382	28510	6.8	118	492	1083
9000-10000	1.9	98	197	394	4.1	177	293	492	9.3	98	1181	25427	7.3	98	394	984
10000-11000	4.2	98	197	318	6.1	98	197	492	15.8	98	3248	24937	8.7	98	492	1280
11000-12000	1.8	98	197	394	4.2	98	157	492	11.3	98	2884	23488	6.9	98	492	984
12000-13000	1.7	98	98	246	3.3	98	293	492	10.0	98	3543	22871	7.1	98	492	1083
13000-14000	0.9	98	197	293	2.9	98	197	394	9.9	98	2888	21480	7.8	98	394	1083
14000-15000	1.5	98	197	293	2.6	98	197	293	10.0	98	1824	20407	6.8	98	394	984
15000-16000	1.4	98	197	293	2.4	98	98	293	9.1	197	3878	19679	7.9	98	492	984
16000-17000	1.4	131	164	164	2.3	138	164	328	9.0	164	3937	18701	6.1	164	492	984
17000-18000	0.3	164	164	164	1.2	164	164	213	7.8	344	3117	17717	6.6	164	492	820
18000-19000	2.2	164	164	164	2.3	164	164	164	11.9	574	15912	16733	9.9	164	492	820
19000-20000	0.3	164	164	164	0.8	164	164	328	7.0	771	18092	15748	4.4	164	492	820

1200Z

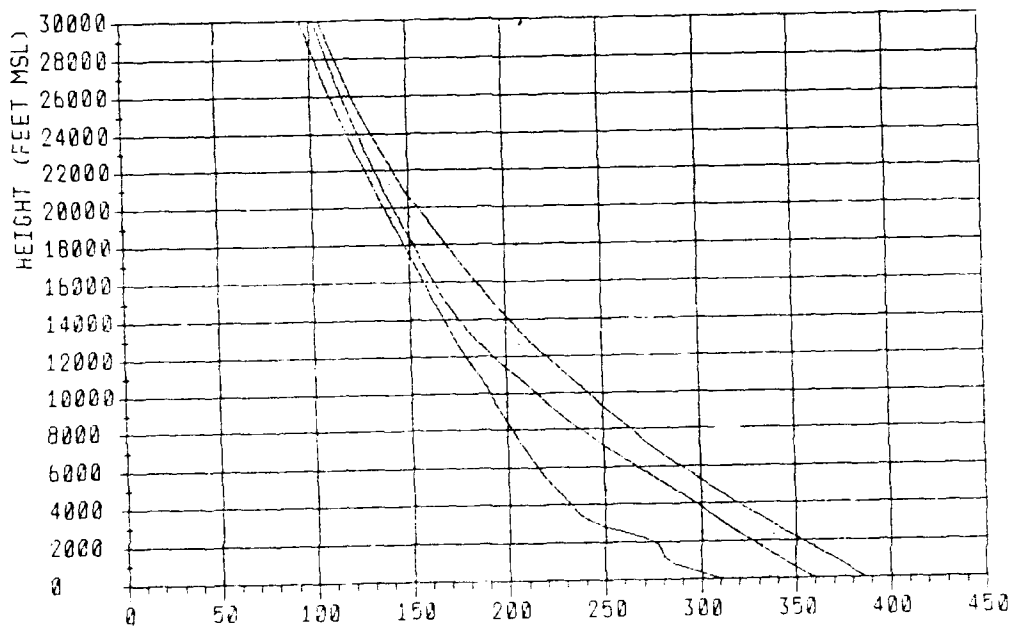
FIGURE B-2-1-D

B-23

N PERCENTILES



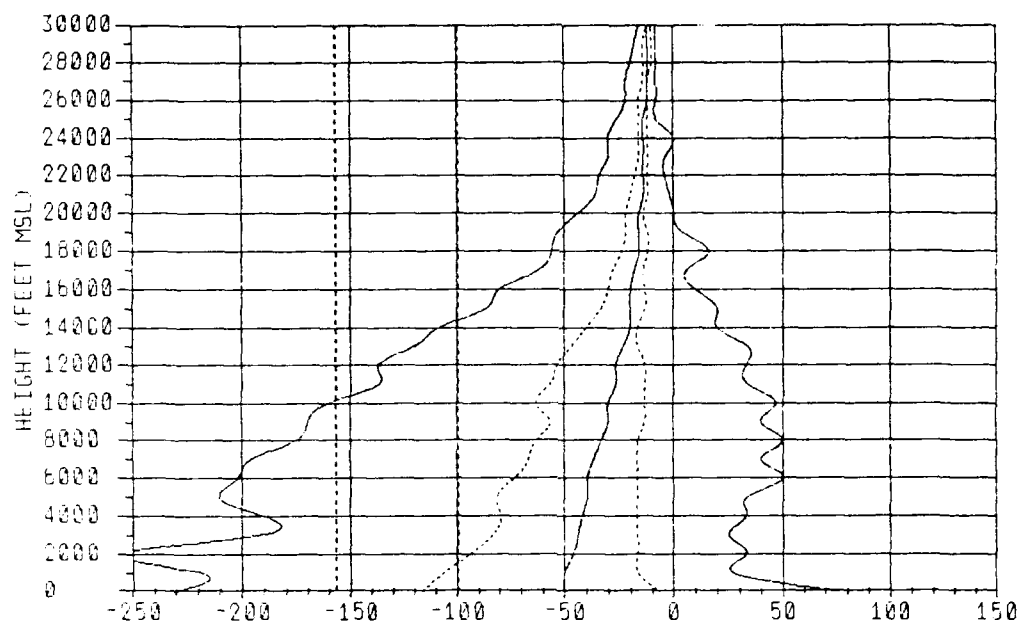
N (N-Units) 0000Z



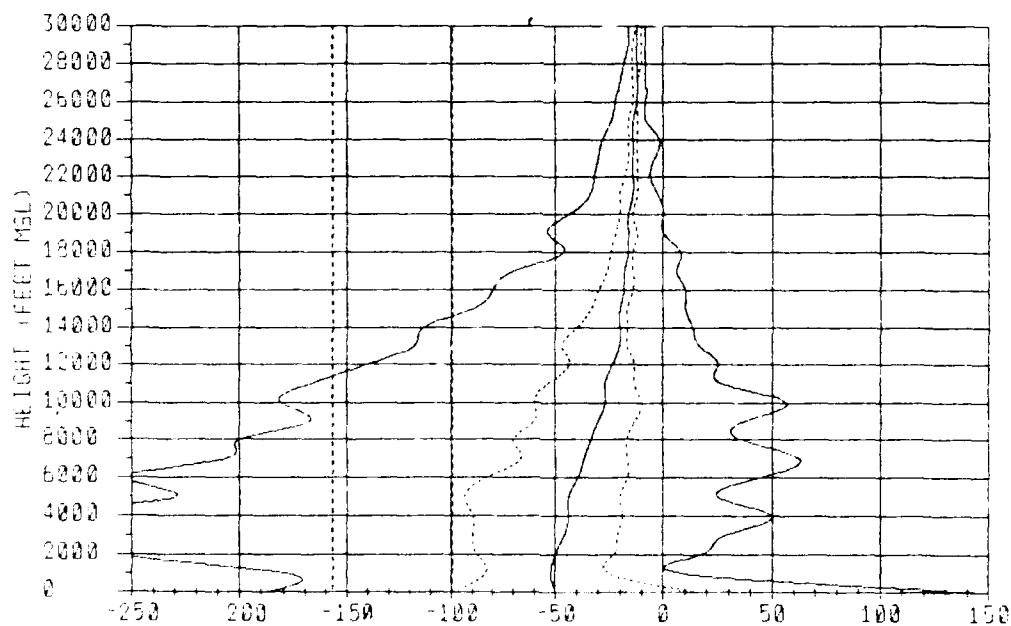
N (N-Units) 1200Z

FIGURE B-2-2-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-2-2-B

VERACRUZ

WET-DRY TRANSITION

SOT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUOT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
5FC-500	308.78	343.88	385.00	381.87	382.00	-303.28	-141.88	-88.28	8.28	138.78	14.1	28.1	21.8
500-1000	284.42	324.82	358.13	373.88	384.28	-228.18	-108.28	-43.78	-10.42	31.38	8.3	14.7	8.8
1000-1500	289.18	327.37	347.78	364.87	378.18	-212.80	-122.81	-80.00	-18.88	20.78	7.8	19.2	3.9
1500-2000	283.32	320.08	338.00	354.80	368.23	-218.28	-118.88	-80.00	-18.88	27.08	8.5	18.8	9.1
2000-2500	248.82	311.74	328.28	344.87	358.87	-282.44	-104.18	-80.00	-18.78	24.81	5.4	11.2	4.8
2500-3000	244.87	300.91	320.18	334.88	345.88	-238.10	-85.83	-80.00	-18.78	33.33	5.0	10.7	5.1
3000-3500	239.41	292.08	311.88	328.78	338.88	-210.41	-85.41	-48.83	-18.88	27.08	4.2	7.1	5.8
3500-4000	239.71	283.23	304.88	318.08	327.00	-193.45	-81.28	-43.78	-18.88	33.18	3.8	8.2	5.8
4000-4500	232.21	278.00	288.08	310.88	318.88	-158.12	-79.18	-43.78	-14.88	48.83	2.4	8.3	6.8
4500-5000	228.70	287.38	281.88	304.18	312.08	-202.08	-79.18	-41.88	-14.88	88.88	4.8	7.8	7.3
5000-6000	221.38	283.10	280.88	284.47	303.88	-204.18	-81.28	-38.88	-12.80	39.88	7.8	10.9	9.8
6000-7000	214.10	237.00	288.00	281.80	288.78	-183.33	-70.08	-37.80	-13.41	84.38	8.0	9.2	10.7
7000-8000	207.70	224.00	288.88	289.78	278.88	-188.27	-78.88	-37.80	-18.88	88.28	8.8	11.8	12.0
8000-9000	201.00	213.10	242.00	288.00	288.18	-180.07	-88.82	-33.33	-13.28	73.30	8.3	10.7	13.8
9000-10000	184.80	204.20	228.80	248.20	282.80	-188.88	-82.28	-33.33	-9.90	93.38	5.1	8.8	12.3
10000-11000	188.80	188.80	218.80	238.80	243.00	-172.82	-88.28	-30.07	-10.03	78.88	8.0	11.0	18.1
11000-12000	182.20	188.00	207.00	224.40	231.80	-188.88	-88.88	-29.88	-13.41	33.33	5.3	8.1	10.8
12000-13000	178.40	181.00	188.88	213.30	220.40	-130.08	-48.74	-28.88	-13.28	39.87	4.0	8.8	10.0
13000-14000	170.80	174.40	188.38	203.80	210.88	-128.88	-48.81	-23.30	-13.28	40.10	3.2	7.0	10.3
14000-15000	168.22	188.80	178.20	194.40	201.10	-110.00	-43.38	-20.08	-18.88	23.30	1.8	5.0	7.3
15000-16000	180.20	183.00	188.80	188.00	192.40	-88.87	-33.33	-20.08	-13.28	38.71	1.8	2.8	8.2
16000-17000	188.40	187.70	182.40	177.80	184.80	-82.82	-33.88	-18.04	-13.41	18.04	0.3	1.8	7.8
17000-18000	180.80	182.40	188.30	189.20	178.30	-83.88	-30.00	-17.88	-12.03	22.03	0.0	1.3	8.2
18000-19000	144.80	148.70	180.80	181.80	188.70	-88.28	-27.88	-18.01	-11.88	18.87	1.5	1.3	9.7
19000-20000	140.10	141.80	148.00	154.80	160.80	-83.88	-28.01	-18.01	-13.88	10.84	0.4	0.1	3.8
20000-21000	138.38	137.20	140.20	147.80	153.80	-48.04	-23.88	-18.01	-13.88	3.88	0.8	0.0	4.1
21000-22000	130.80	132.80	138.80	141.80	147.40	-40.00	-21.88	-14.08	-12.03	3.88	0.1	0.0	4.1
22000-23000	128.00	128.80	131.10	138.10	141.18	-40.00	-20.00	-13.88	-11.88	-1.88	0.0	0.8	2.4
23000-24000	120.80	123.80	128.80	130.80	135.30	-33.88	-17.88	-13.88	-11.88	-2.03	0.0	0.0	3.1
24000-25000	118.30	118.70	122.10	128.80	129.70	-33.88	-17.88	-13.88	-11.88	1.88	0.1	0.4	3.7
25000-26000	112.00	118.80	118.00	121.00	124.40	-28.83	-18.01	-13.38	-11.88	-7.87	0.0	0.0	1.0
26000-27000	107.80	112.10	114.10	118.70	118.80	-22.03	-14.08	-12.03	-11.88	-8.02	0.0	0.0	1.1
27000-28000	103.38	108.00	110.10	114.80	114.80	-21.88	-14.08	-12.03	-10.00	-8.84	0.0	0.2	1.1
28000-29000	98.80	104.40	108.20	108.10	110.00	-18.04	-13.88	-12.03	-10.00	-8.02	0.0	0.0	0.8
29000-30000	98.80	101.00	102.80	104.80	108.10	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.8
30000-31000	92.48	97.80	98.40	101.00	102.30	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
31000-32000	88.10	94.80	98.10	97.70	98.80	-22.78	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
32000-33000	88.50	91.00	92.80	94.30	95.30	-13.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.3
33000-34000	82.20	87.80	88.30	90.70	91.40	-20.00	-11.88	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	78.80	85.80	88.70	87.70	88.30	-20.00	-10.00	-10.00	-7.87	-7.87	0.0	0.0	0.0

0000Z

SOT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLK	SUB
5FC-500	289.87	348.84	389.78	384.00	393.58	-227.08	-110.41	-43.78	82.80	228.88	8.8	18.3	43.8
500-1000	280.00	318.00	381.80	377.38	388.37	-193.45	-102.08	-88.33	-27.08	18.38	5.3	10.7	2.8
1000-1500	289.82	320.08	382.88	368.00	378.70	-184.87	-88.88	-88.28	-27.08	7.78	2.7	8.3	2.4
1500-2000	282.24	322.90	344.38	358.78	368.88	-188.14	-88.21	-82.08	-28.00	8.28	3.8	7.8	3.3
2000-2500	280.30	318.80	338.28	349.74	358.88	-191.21	-81.88	-80.00	-22.81	22.48	3.8	8.8	4.2
2500-3000	289.81	307.80	328.88	340.37	348.37	-128.41	-83.78	-80.00	-22.81	27.08	4.8	11.8	8.7
3000-3500	248.74	298.88	317.88	330.88	340.18	-233.33	-88.88	-80.00	-22.81	27.08	8.0	9.2	5.3
3500-4000	237.80	289.84	310.18	322.82	331.88	-210.41	-88.04	-47.81	-20.83	27.08	4.4	8.1	5.7
4000-4500	232.20	278.18	303.03	314.88	323.88	-208.28	-83.33	-48.83	-18.88	80.00	4.8	7.8	8.8
4500-5000	228.27	270.44	298.38	307.88	318.47	-218.23	-83.33	-43.78	-18.88	82.80	5.4	10.8	8.2
5000-6000	222.80	284.81	284.28	287.18	308.00	-200.00	-83.78	-43.78	-18.78	41.02	8.0	15.3	9.0
6000-7000	218.40	228.00	288.88	282.08	288.88	-242.28	-83.33	-38.88	-18.88	80.00	8.8	12.2	10.8
7000-8000	208.70	222.20	288.88	270.00	278.78	-220.93	-88.78	-37.80	-18.88	80.18	7.7	11.4	12.2
8000-9000	201.73	212.30	242.80	287.88	284.84	-188.41	-73.30	-38.41	-13.28	43.38	8.8	12.2	11.4
9000-10000	188.00	202.80	228.80	248.80	282.40	-183.40	-83.41	-33.33	-10.03	83.28	8.3	9.2	12.0
10000-11000	188.80	184.80	217.80	234.80	242.00	-200.00	-83.41	-28.88	-10.03	83.28	7.7	8.8	18.2
11000-12000	182.42	187.80	204.80	223.88	230.80	-183.38	-83.28	-28.88	-13.41	39.87	8.3	8.2	8.8
12000-13000	178.70	180.80	184.20	213.20	218.80	-133.33	-80.00	-23.30	-13.28	33.33	2.8	8.3	8.8
13000-14000	170.71	174.30	184.40	203.80	208.80	-113.38	-48.81	-23.30	-13.88	30.08	2.8	4.8	8.2
14000-15000	168.40	188.40	178.70	194.80	200.40	-108.84	-39.87	-20.08	-3.41	33.33	1.8	4.0	7.0
15000-16000	180.40	182.80	188.20	188.30	192.20	-88.87	-38.88	-20.08	-3.41	18.88	1.8	3.1	5.7
16000-17000	188.80	187.80	182.00	178.20	184.70	-82.47	-32.03	-18.04	-13.88	14.21	0.7	2.3	5.8
17000-18000	180.88	182.40	188.10	189.80	178.20	-81.88	-28.04	-17.88	-13.88	12.17	0.7	0.8	4.8
18000-19000	148.20	148.70	180.70	182.40	188.70	-88.88	-28.01	-18.01	-11.88	13.88	1.8	1.8	7.2
19000-20000	140.33	141.80	148.00	184.80	181.07	-88.02	-25.83	-18.01	-13.88	8.02	0.1	0.8	4.0
20000-21000	138.80	137.30	140.20	147.80	153.78	-47.88	-22.03	-18.01	-13.88	3.88	0.1	0.3	2.8
21000-22000	131.40	132.80	138.80	141.80	147.80	-40.00	-20.00	-14.08	-12.03	0.00	0.0	0.3	3.1
22000-23000	128.81	128.80	131.10	138.10	141.18	-40.00	-20.00	-13.88	-11.88	-1.88	0.0	0.1	2.4
23000-24000	120.80	123.80	128.80	131.00	138.00	-37.88	-17.88	-13.88	-11.88	-2.03	0.0	0.1	2.4
24000-25000	117.28	118.80	122.20	128.80	130.10	-31.88	-17.88	-13.88	-11.88	-1.88	0.0	0.0	2.8
25000-26000	113.00	118.80	118.10	121.30	124.80	-28.01	-18.01	-13.88	-11.88	-8.84	0.0	0.2	1.2
26000-27000	108.88	112.20	114.20	118.80	118.80	-28.88	-15.84	-12.03	-11.88	-8.02	0.0	0.2	0.8
27000-28000	104.42	108.00	110.10	112.80	115.10	-22.03	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.8
28000-29000	100.30	104.40	108.20	108.10	110.30	-18.04	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.8
29000-30000	98.80	101.10	102.80	104.80	108.10	-18.01	-12.03	-11.88	-10.00	-8.08	0.0	0.0	0.8
30000-31000	93.10	97.80	98.40	101.02	102.40	-14.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
31000-32000	88.70	94.80	98.10	97.77	98.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
32000-33000	88.20	91.10	92.70	94.30	95.30	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
33000-34000	82.78	87.80	88.80	90.70	91.40	-21.88	-11.88	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	80.30	85.80	88.30	87.70	88.25	-18.01	-10.00	-10.00	-8.05	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	14.1	154	253	471	28.1	88	285	689	93.0	351	3081	34878	21.8	154	351	591
500-1000	6.8	88	394	689	9.7	88	394	689	11.2	88	3448	13563	3.3	88	285	1083
1000-1500	3.3	128	394	787	11.3	88	591	1280	11.8	88	3543	18981	2.4	88	443	1083
1500-2000	4.7	88	394	689	6.3	88	394	1083	11.8	88	5018	13111	3.0	88	492	1855
2000-2500	2.8	258	492	787	4.8	88	492	1102	9.8	88	3543	18471	2.3	88	285	1220
2500-3000	3.0	88	492	778	5.7	88	443	787	10.9	88	3051	32218	3.0	88	591	2077
3000-3500	2.7	187	492	708	3.3	88	492	1053	8.6	88	2168	17123	3.0	88	394	1884
3500-4000	1.4	88	285	689	3.6	88	285	1083	5.0	88	1918	31431	2.8	88	541	1211
4000-4500	1.4	88	197	591	3.6	88	492	787	6.3	88	2854	30938	3.0	88	394	648
4500-5000	4.2	88	285	600	4.9	88	285	689	9.0	128	2758	30280	3.3	88	394	1338
5000-6000	5.8	187	344	591	6.5	88	285	689	17.8	88	3288	28758	7.8	88	689	1280
6000-7000	4.4	88	285	492	7.2	88	394	689	12.8	88	2352	28577	6.3	88	689	1478
7000-8000	5.1	88	285	492	9.8	88	394	689	13.9	88	2382	27484	7.8	88	689	1378
8000-9000	5.4	88	285	394	6.4	88	197	591	17.3	88	2112	28818	6.7	118	689	1478
9000-10000	3.7	88	197	394	7.8	88	285	492	12.0	88	1878	25723	6.2	167	640	1181
10000-11000	5.8	88	197	394	9.7	88	197	472	21.8	187	8348	24938	10.4	88	492	1122
11000-12000	5.0	88	197	394	7.5	88	157	394	12.8	88	2808	23888	6.3	88	640	1181
12000-13000	3.8	88	197	288	5.8	88	197	394	11.4	88	4282	22871	5.7	88	591	1181
13000-14000	2.8	88	88	288	6.5	88	197	394	12.3	88	3837	21788	6.9	88	492	1083
14000-15000	1.9	88	197	288	4.7	88	148	394	8.2	88	2484	20804	4.7	138	591	1181
15000-16000	1.8	88	197	197	2.5	88	88	285	9.4	88	5878	18787	5.8	88	394	1024
16000-17000	0.1	164	164	164	1.9	88	164	285	7.8	591	18048	18932	8.7	230	823	1148
17000-18000	0.0				1.3	184	184	328	6.5	328	6808	17717	8.7	184	492	820
18000-19000	1.5	164	164	164	1.2	164	164	328	9.8	591	15912	18888	7.8	184	492	820
19000-20000	0.4	164	164	164	0.1	184	184	184	4.8	1017	14928	15748	1.8	164	688	938

0000Z

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	9.8	180	351	591	19.3	88	351	797	92.8	351	4724	34878	43.8	184	351	448
500-1000	1.2	197	285	787	4.4	88	394	1083	8.9	305	4134	16047	1.7	88	492	1181
1000-1500	1.8	88	492	689	4.1	88	492	1122	6.8	88	3248	21080	1.2	108	248	1240
1500-2000	1.8	128	394	858	3.9	88	394	1043	5.4	88	4232	33302	2.3	187	787	1878
2000-2500	2.7	197	394	984	5.1	88	443	1014	8.1	88	2854	32808	2.4	238	492	1427
2500-3000	2.9	197	394	888	7.1	88	344	984	8.4	88	2087	6888	3.0	88	689	1855
3000-3500	2.7	187	344	708	5.0	88	288	945	4.8	88	2481	31747	2.1	148	541	1873
3500-4000	2.7	187	394	600	4.7	88	394	688	8.3	187	2313	31431	3.0	88	591	1181
4000-4500	3.2	187	394	591	4.4	88	285	679	6.0	88	1083	18888	3.3	88	591	888
4500-5000	4.0	177	288	591	7.0	88	422	984	10.8	88	2382	30280	4.0	88	394	1083
5000-6000	6.1	128	394	591	11.2	88	394	878	21.1	88	3051	29880	6.7	88	394	1230
6000-7000	6.4	197	394	591	10.8	88	285	689	14.0	88	2412	28808	7.8	88	591	1873
7000-8000	8.3	88	285	551	9.9	88	285	689	18.2	88	1870	27891	8.2	88	591	1388
8000-9000	5.8	88	285	394	9.0	88	285	591	16.5	88	2953	28788	6.7	88	541	1873
9000-10000	5.1	88	258	394	7.2	88	197	492	13.3	88	1888	25772	7.7	88	492	884
10000-11000	8.3	88	197	394	9.1	88	285	492	22.3	88	4084	24837	9.3	88	591	1280
11000-12000	4.8	88	197	354	7.0	88	197	394	12.9	138	4527	23754	6.4	78	492	1288
12000-13000	2.3	88	197	423	5.8	88	197	394	10.8	88	4580	22750	6.3	59	394	1280
13000-14000	2.9	88	197	285	4.1	88	197	394	10.5	88	7447	21707	4.8	88	492	1083
14000-15000	1.6	88	197	285	3.8	88	197	394	9.2	88	8138	20801	4.7	88	492	884
15000-16000	1.5	88	88	187	3.1	88	88	197	6.7	88	8744	19807	3.8	88	488	1080
16000-17000	0.7	88	171	164	2.3	174	164	203	9.8	888	18127	18842	3.5	164	492	838
17000-18000	0.7	164	164	164	0.8	164	164	328	4.7	410	11073	17789	3.8	164	492	1148
18000-19000	1.5	164	164	164	1.3	164	164	164	7.8	1280	15812	18888	5.7	164	328	804
19000-20000	0.1	164	164	164	0.8	164	164	164	3.6	688	15092	15884	2.4	164	410	888

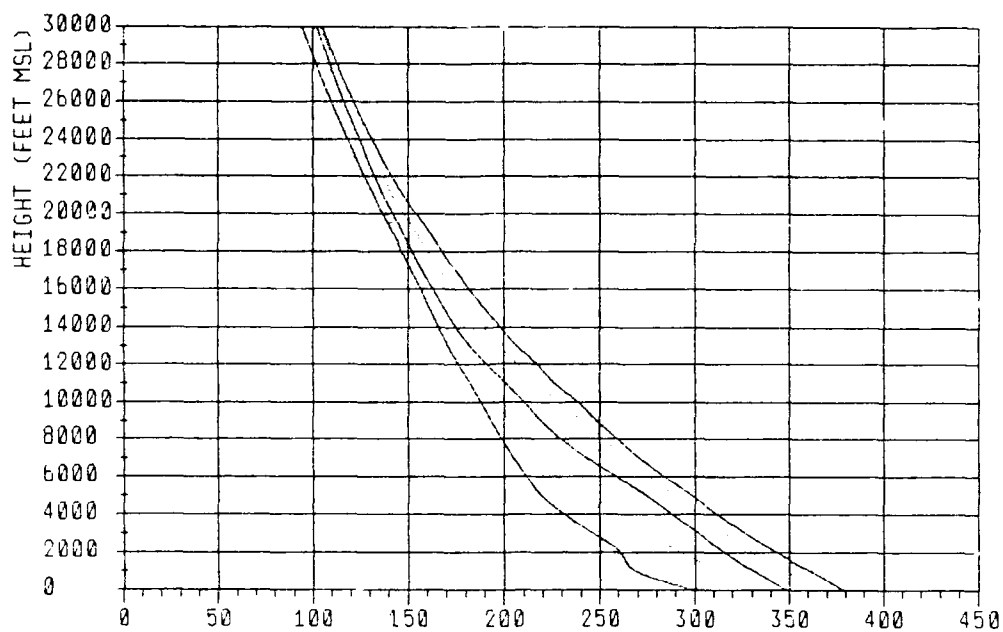
1200Z

FIGURE B-2-2-D

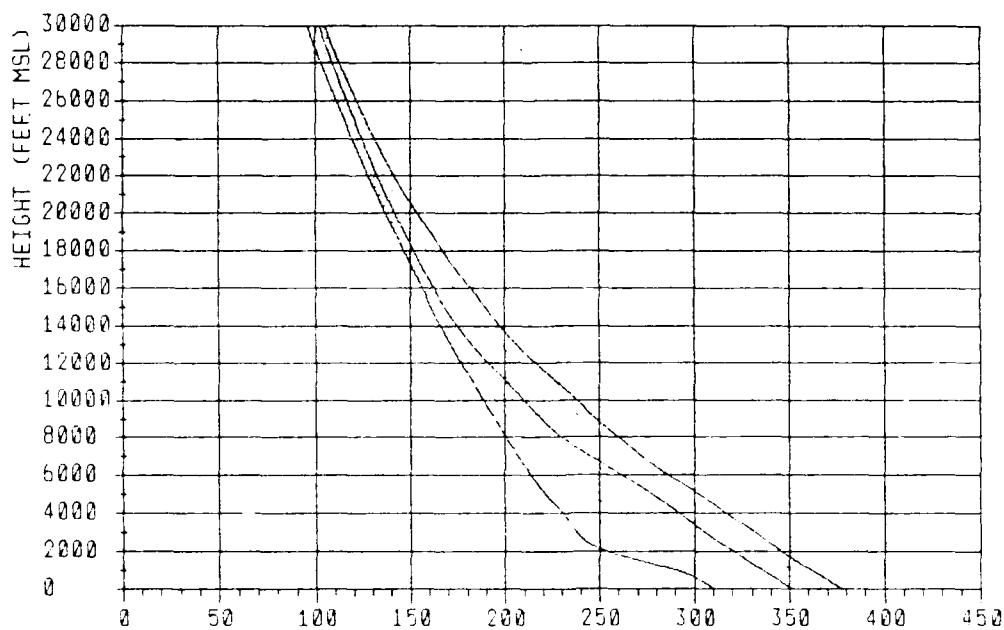
VERACRUZ

DRY SEASON

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

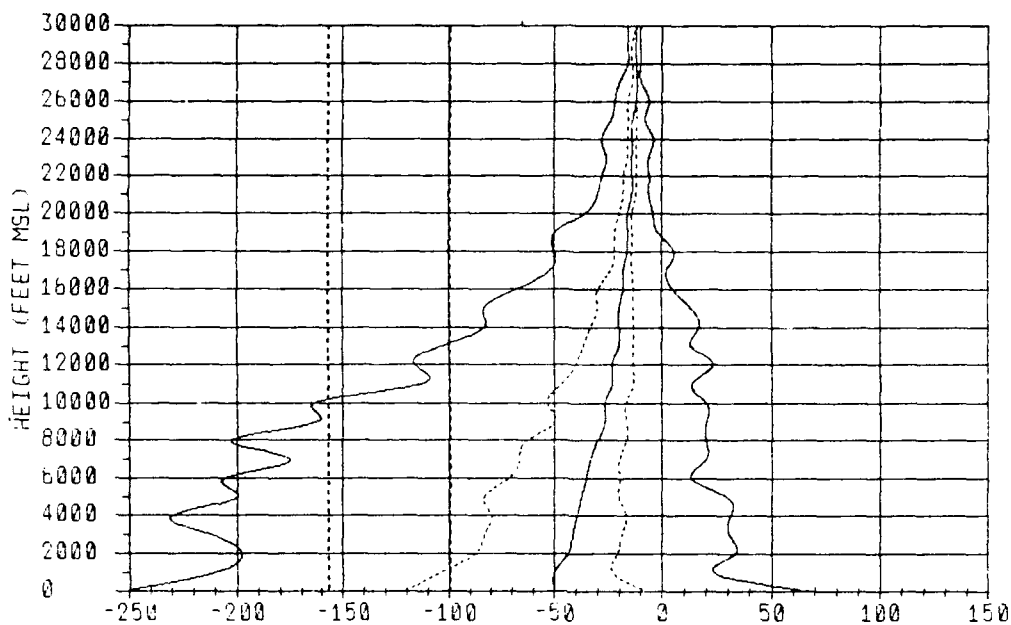
FIGURE B-2-3-A

B-28

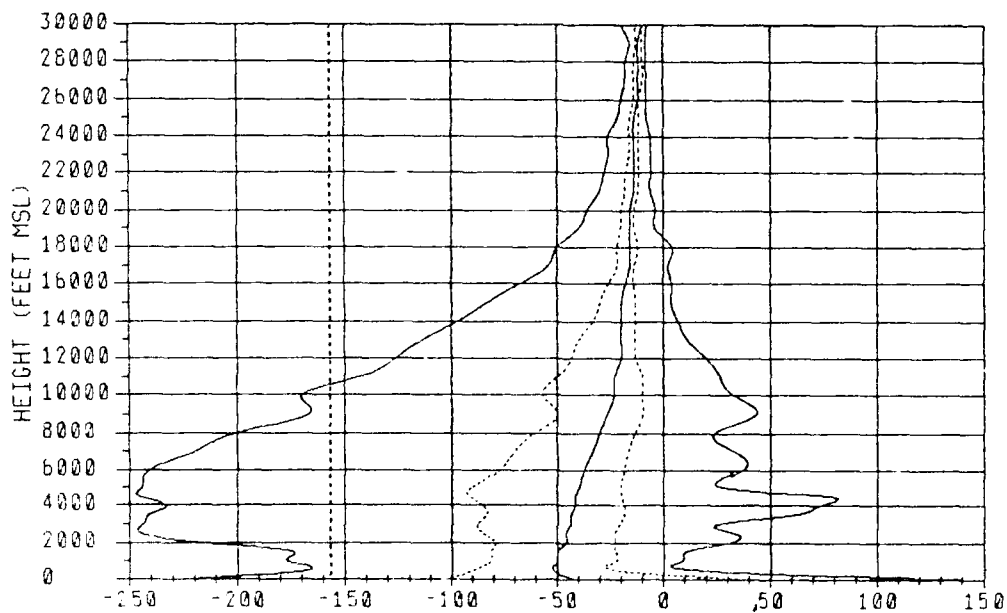
VERACRUZ

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-2-3-B

VERACRUZ

DRY SEASON

HOT FT MSL	W PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
SFC-500	310.37	334.88	353.00	372.28	382.08	-233.68	-128.68	-50.00	8.25	112.88	13.8	25.6	21.1
500-1000	287.17	328.19	348.38	362.58	375.00	-203.02	-114.58	-50.00	-18.68	22.91	8.8	17.3	8.8
1000-1500	260.48	318.75	338.78	352.80	365.60	-221.80	-108.25	-50.00	-20.83	21.50	5.9	16.2	3.8
1500-2000	287.20	308.25	328.60	344.00	354.28	-218.68	-97.81	-47.81	-22.91	33.33	5.2	11.4	3.8
2000-2500	258.14	289.88	320.5	335.19	345.75	-187.81	-98.58	-45.83	-20.83	33.33	4.5	8.0	3.8
2500-3000	282.88	322.37	312.88	328.75	337.60	-218.68	-83.33	-43.75	-18.68	31.25	4.5	6.8	5.8
3000-3500	242.70	279.08	307.50	318.75	328.78	-201.82	-81.25	-41.88	-18.68	29.18	4.5	8.3	5.3
3500-4000	238.20	270.75	298.50	311.88	320.58	-221.50	-85.41	-41.88	-18.75	29.41	4.8	7.8	4.2
4000-4500	233.34	260.80	281.80	305.08	313.79	-212.50	-81.25	-41.88	-18.75	27.08	4.2	6.8	4.2
4500-5000	228.38	251.80	288.06	288.68	307.58	-237.50	-79.18	-38.58	-18.68	33.33	5.4	8.1	6.5
5000-6000	218.64	238.00	273.75	289.00	288.32	-188.32	-79.18	-38.58	-18.82	29.18	8.8	11.7	5.8
6000-7000	211.10	227.00	258.28	275.34	283.56	-188.61	-70.83	-38.58	-18.82	20.71	8.8	10.1	4.7
7000-8000	204.70	217.80	243.40	263.50	271.50	-178.87	-68.68	-33.33	-18.82	18.68	5.7	10.1	4.8
8000-9000	188.50	209.30	229.30	251.70	260.08	-188.74	-60.02	-30.07	-18.68	23.30	8.3	10.0	5.8
9000-10000	182.82	201.10	218.20	239.60	248.10	-158.77	-50.00	-28.88	-13.41	23.30	4.2	8.4	8.0
10000-11000	188.80	193.80	208.80	227.80	237.30	-158.64	-53.38	-28.58	-18.68	18.68	5.1	6.3	7.3
11000-12000	180.80	188.80	198.80	218.00	225.70	-123.30	-46.81	-23.30	-13.41	18.68	2.8	5.8	7.4
12000-13000	175.40	180.30	188.40	205.40	215.70	-120.08	-43.38	-23.30	-13.41	18.68	2.8	5.1	6.3
13000-14000	188.80	173.80	180.50	198.30	205.58	-98.74	-38.71	-20.05	-13.41	18.82	2.2	3.8	8.8
14000-15000	188.70	188.10	173.00	187.30	188.30	-88.71	-33.33	-20.05	-13.41	18.68	1.8	2.8	8.3
15000-16000	158.80	182.70	188.80	178.40	188.30	-83.33	-28.95	-18.82	-13.41	8.77	1.2	2.0	4.1
16000-17000	158.10	187.80	181.40	171.80	180.72	-84.08	-28.88	-17.88	-13.88	4.00	0.8	0.7	3.3
17000-18000	150.24	182.30	188.80	184.30	173.10	-83.98	-22.03	-18.01	-13.88	2.03	0.1	0.7	3.1
18000-19000	144.80	148.80	180.20	187.80	185.80	-82.03	-22.03	-18.01	-13.88	3.88	0.3	0.5	3.7
19000-20000	140.10	141.80	144.80	151.10	157.91	-42.03	-21.85	-18.01	-13.88	-2.03	0.1	0.1	1.1
20000-21000	138.40	137.40	140.10	145.11	151.80	-33.98	-20.00	-18.84	-13.88	-8.02	0.2	0.1	1.1
21000-22000	130.80	133.00	138.80	140.00	145.80	-28.04	-18.04	-13.88	-12.03	-5.84	0.0	0.0	1.8
22000-23000	128.00	128.70	131.30	135.10	139.70	-28.04	-17.88	-13.88	-11.85	-5.84	0.0	0.2	1.1
23000-24000	120.80	124.10	128.80	130.30	134.30	-24.08	-18.01	-13.88	-11.85	-4.08	0.1	0.0	1.7
24000-25000	118.18	126.00	122.40	128.80	128.80	-28.04	-18.01	-13.88	-11.85	-6.02	0.1	0.0	1.8
25000-26000	111.80	118.10	118.30	121.00	123.80	-22.03	-18.01	-13.88	-11.85	-7.97	0.0	0.0	0.8
26000-27000	107.83	112.40	114.50	118.80	119.20	-22.03	-14.08	-12.03	-11.85	-7.97	0.0	0.0	0.8
27000-28000	103.50	108.20	110.40	112.80	114.88	-18.04	-13.88	-12.03	-10.00	-10.00	0.0	0.0	0.4
28000-29000	99.42	104.80	108.80	108.40	109.80	-18.01	-13.88	-11.85	-10.00	-10.00	0.0	0.0	0.3
29000-30000	95.80	101.30	103.10	104.80	108.10	-18.01	-12.03	-11.85	-10.00	-10.00	0.0	0.0	0.2
30000-31000	92.30	98.00	99.70	101.40	102.40	-18.84	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
31000-32000	88.80	94.80	98.40	98.00	99.00	-18.04	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.4
32000-33000	88.30	91.00	92.80	94.50	95.40	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	82.00	87.80	89.30	80.80	81.80	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	78.88	85.80	88.80	87.80	88.50	-13.88	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

0000Z

HGT FT MSL	W PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
SFC-500	318.52	337.08	357.08	371.38	381.88	-222.33	-100.00	-41.88	40.44	170.35	5.8	14.1	34.3
500-1000	308.58	328.00	348.50	364.50	375.50	-188.88	-88.58	-52.08	-22.91	18.88	2.4	8.0	3.7
1000-1500	288.75	321.88	341.18	355.75	368.88	-177.08	-81.25	-50.00	-22.91	8.33	3.0	6.7	2.3
1500-2000	288.83	314.75	333.31	347.50	358.38	-175.18	-81.25	-50.00	-22.91	10.42	2.9	7.2	2.7
2000-2500	283.88	307.58	325.38	339.88	349.88	-225.00	-78.18	-45.83	-22.91	31.25	3.9	5.8	3.7
2500-3000	254.43	288.18	317.25	331.25	341.38	-282.21	-85.21	-45.83	-22.91	33.33	8.5	8.6	4.5
3000-3500	238.60	287.75	308.00	322.57	333.25	-284.18	-87.50	-43.75	-20.83	25.02	5.8	8.6	4.7
3500-4000	235.80	278.88	301.88	315.17	325.70	-243.75	-83.33	-43.75	-18.75	60.41	5.4	8.8	5.8
4000-4500	233.78	287.88	295.25	308.00	318.08	-233.33	-85.41	-41.88	-18.75	72.91	4.8	8.3	6.3
4500-5000	228.44	287.88	288.75	301.18	311.08	-288.84	-81.88	-41.88	-18.80	77.08	7.1	11.3	6.1
5000-6000	220.70	240.80	278.88	290.88	301.08	-258.87	-88.58	-38.58	-20.05	27.08	10.8	15.5	5.2
6000-7000	213.53	228.80	260.88	278.58	285.08	-248.81	-77.08	-37.80	-18.75	38.88	8.4	12.7	5.8
7000-8000	208.83	217.50	244.80	264.00	271.88	-218.57	-70.05	-33.33	-18.68	33.33	8.1	10.4	5.8
8000-9000	200.00	208.80	228.80	251.40	259.38	-200.00	-60.02	-30.07	-13.41	23.91	7.8	9.5	7.8
9000-10000	183.80	200.80	218.50	239.30	248.70	-188.88	-50.00	-28.88	-10.03	43.38	4.7	7.3	8.8
10000-11000	187.80	184.10	208.10	228.70	238.80	-170.05	-58.64	-23.44	-10.03	33.33	8.1	8.0	10.4
11000-12000	181.50	188.80	188.80	218.70	225.70	-143.38	-50.00	-23.30	-10.03	28.58	4.8	7.4	7.7
12000-13000	175.80	180.40	188.30	208.70	214.80	-128.25	-43.38	-20.05	-13.28	20.05	3.1	5.3	8.8
13000-14000	170.20	174.00	180.50	198.50	205.04	-113.41	-39.87	-20.05	-13.41	11.30	2.8	5.6	5.0
14000-15000	184.81	188.20	172.80	187.40	185.80	-88.81	-33.33	-20.05	-13.41	8.64	1.7	3.4	4.1
15000-16000	180.00	182.80	188.80	179.20	187.80	-82.87	-28.95	-18.82	-13.41	3.38	1.1	2.4	2.8
16000-17000	155.28	187.50	181.20	171.30	180.10	-87.57	-28.01	-17.88	-14.08	3.88	1.0	1.0	3.3
17000-18000	150.30	182.30	188.40	183.30	172.10	-84.08	-22.03	-18.01	-13.88	1.85	0.1	0.4	2.7
18000-19000	144.80	148.80	180.10	187.80	185.20	-80.00	-21.85	-18.01	-12.03	3.88	0.3	0.8	3.3
19000-20000	140.10	141.80	144.80	150.80	157.80	-40.00	-20.00	-18.01	-13.88	-3.88	0.1	0.3	1.7
20000-21000	138.80	137.40	140.10	145.07	151.40	-33.83	-20.00	-18.84	-13.88	-3.88	0.1	0.0	1.2
21000-22000	131.08	133.00	138.80	140.00	145.80	-30.00	-18.04	-13.88	-12.03	-8.02	0.0	0.2	1.0
22000-23000	128.70	128.80	131.20	135.10	139.80	-28.04	-17.88	-13.88	-11.85	-8.02	0.0	0.2	0.5
23000-24000	121.80	124.20	128.70	130.20	134.30	-28.01	-18.01	-13.88	-11.85	-8.02	0.0	0.2	1.4
24000-25000	117.30	120.10	122.30	125.40	128.80	-28.01	-18.01	-13.88	-11.85	-8.02	0.0	0.1	1.1
25000-26000	113.10	118.20	118.30	120.80	123.80	-22.03	-18.01	-13.88	-11.85	-8.05	0.0	0.0	0.2
26000-27000	108.00	112.50	114.50	118.70	119.10	-20.00	-14.08	-12.03	-11.85	-8.05	0.0	0.0	0.2
27000-28000	104.80	108.20	110.40	112.80	114.70	-18.04	-13.88	-12.03	-10.00	-8.05	0.0	0.0	0.3
28000-29000	100.81	104.70	108.50	108.40	110.00	-17.88	-13.88	-11.85	-10.00	-10.00	0.0	0.0	0.2
29000-30000	97.00	101.30	103.10	104.80	108.10	-18.01	-12.03	-11.85	-10.00	-10.00	0.0	0.0	0.2
30000-31000	93.50	98.00	99.70	101.40	102.40	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
31000-32000	90.08	94.80	98.40	98.00	99.00	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
32000-33000	88.38	91.10	92.80	94.50	95.50	-21.85	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	83.04	87.80	89.30	90.80	91.80	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.40	85.50	88.80	87.90	88.57	-13.88	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

VERACRUZ

DRY SEASON

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
5FC-500	13.8	98	253	492	25.8	98	295	885	93.7	253	4428	39228	21.1	154	295	484
500-1000	3.8	197	394	885	8.7	98	394	884	12.8	98	2853	34483	3.8	98	394	787
1000-1500	3.4	197	394	885	7.9	98	295	884	11.7	98	3543	33892	1.9	167	443	1014
1500-2000	2.9	197	394	807	5.1	98	295	1004	8.2	295	3937	45488	2.3	108	591	1835
2000-2500	2.2	98	541	787	5.0	98	394	787	7.0	98	3842	32888	2.1	98	591	1181
2500-3000	2.9	98	492	709	3.6	98	394	884	6.6	98	4626	32416	3.0	98	492	1338
3000-3500	2.9	197	394	787	6.2	98	295	965	6.8	98	5187	31924	2.3	98	837	1644
3500-4000	2.6	148	394	689	4.2	98	394	884	5.9	492	6496	31830	1.7	138	492	1181
4000-4500	2.2	187	492	689	3.3	98	394	787	6.1	98	4724	31038	2.1	98	591	787
4500-5000	3.8	98	295	659	6.3	98	295	787	10.1	266	10581	30447	3.4	98	492	884
5000-6000	5.1	98	394	591	8.0	98	295	889	16.5	394	6598	30053	4.1	98	591	1437
6000-7000	5.2	98	295	492	8.6	98	394	689	10.9	98	6201	28872	2.8	98	492	1132
7000-8000	5.1	98	295	492	7.7	98	197	591	11.1	394	7283	27847	3.3	98	941	1806
8000-9000	5.3	197	295	394	8.3	98	197	591	12.8	295	12517	27002	4.2	98	591	1457
9000-10000	3.7	98	295	324	4.5	98	197	394	7.9	98	6020	25821	3.5	98	591	1142
10000-11000	4.6	98	197	295	5.4	98	197	492	12.7	98	7251	24935	4.4	98	492	1181
11000-12000	2.6	98	197	295	5.1	98	197	394	8.7	98	6856	23951	6.3	98	492	884
12000-13000	2.6	98	98	295	4.4	98	197	295	9.0	98	9515	22671	3.5	98	941	1083
13000-14000	1.9	98	98	295	2.9	98	197	295	7.7	98	20998	21785	6.1	98	492	1083
14000-15000	1.4	98	98	295	2.5	98	197	335	6.3	98	8285	20883	4.0	98	591	1083
15000-16000	1.0	98	98	197	1.9	98	197	299	5.3	98	19325	19817	2.2	98	394	835
16000-17000	0.8	131	164	164	0.7	98	164	230	3.6	2083	16209	16832	2.2	164	458	851
17000-18000	0.1	164	164	164	0.7	164	164	326	2.8	620	17061	17881	2.8	164	492	1146
18000-19000	0.3	164	164	164	0.5	164	164	164	4.8	3379	18078	16897	2.8	164	328	722
19000-20000	0.1	164	164	164	0.1	164	164	164	1.1	3809	15259	15748	1.0	164	328	755

0000Z

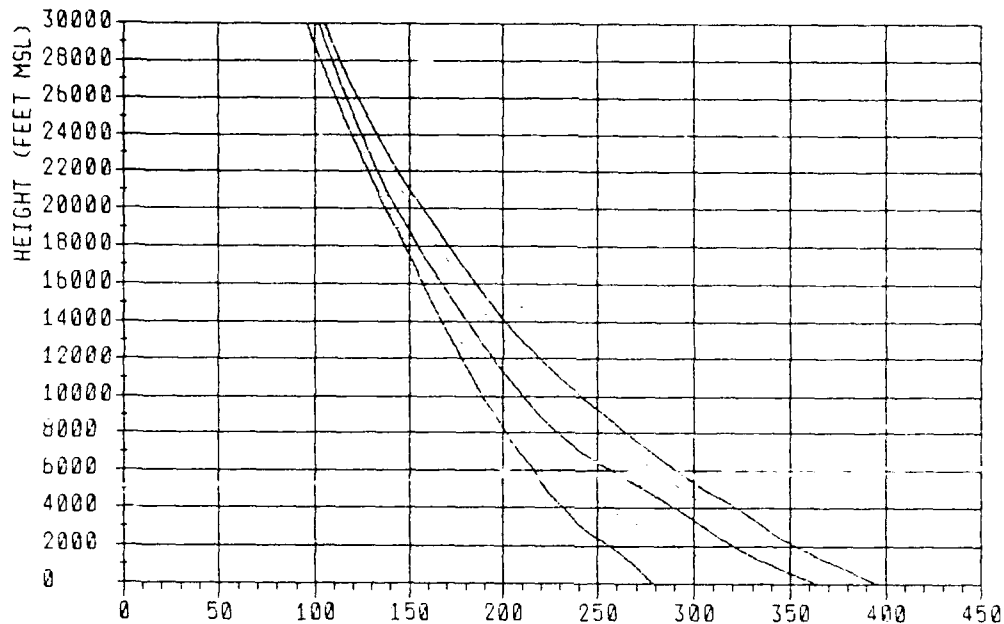
BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
5FC-500	5.9	58	253	492	14.1	98	351	787	83.1	492	5018	34975	34.3	154	351	449
500-1000	0.9	187	295	759	3.6	98	492	1004	10.2	167	4232	34581	2.0	98	492	1378
1000-1500	2.4	187	394	846	3.3	98	394	888	4.9	728	3780	33892	1.0	98	295	709
1500-2000	1.4	98	492	757	4.5	98	394	888	5.3	98	3101	23302	1.4	98	591	1181
2000-2500	2.9	285	394	787	3.0	98	492	1073	4.6	98	1476	32908	2.3	98	492	1083
2500-3000	4.2	197	394	787	6.1	98	492	984	6.7	98	2859	24722	2.4	138	591	1280
3000-3500	3.3	197	492	787	4.9	98	394	945	6.9	98	2854	32024	2.7	98	591	1417
3500-4000	2.7	167	492	787	5.1	98	394	805	6.7	98	3297	31530	3.2	98	492	1122
4000-4500	2.6	148	394	689	5.0	98	295	787	7.5	98	3593	30939	3.0	118	591	888
4500-5000	5.4	128	394	591	8.1	98	295	689	11.3	315	5318	30349	2.1	98	443	1595
5000-6000	7.5	138	394	591	11.4	98	295	787	17.9	295	7283	29955	3.6	187	591	1280
6000-7000	7.2	98	295	502	10.7	98	295	689	13.4	98	4527	28774	4.1	98	591	1250
7000-8000	6.5	187	295	492	7.8	98	197	591	12.6	256	4527	27888	3.5	98	640	1487
8000-9000	6.0	98	295	472	8.2	98	295	492	13.2	98	3842	26805	5.7	98	492	1576
9000-10000	4.1	98	295	394	6.0	98	295	394	9.6	98	5413	25931	5.8	98	492	1083
10000-11000	5.7	98	197	295	7.5	98	197	394	16.2	256	9416	24935	5.4	98	492	1181
11000-12000	4.7	98	197	295	6.4	98	197	295	11.8	98	23183	23951	4.8	98	591	1280
12000-13000	2.8	98	197	295	4.7	98	197	394	9.3	98	12416	22770	4.2	98	492	1112
13000-14000	2.4	98	197	197	5.0	98	197	295	8.5	98	20998	21854	3.0	98	591	1083
14000-15000	1.8	98	98	278	2.7	98	197	295	6.5	98	20210	20801	2.8	98	295	1132
15000-16000	0.9	98	98	288	2.2	98	98	295	4.7	98	18228	18817	2.0	98	394	882
16000-17000	1.0	112	164	164	1.0	144	164	354	3.6	741	18209	18832	2.5	164	492	1035
17000-18000	0.1	164	164	164	0.4	164	164	164	2.2	2329	17389	17881	1.9	164	492	888
18000-19000	0.3	164	164	164	0.8	164	164	328	4.4	1803	18078	16733	2.8	164	328	820
19000-20000	0.1	164	164	164	0.3	164	164	164	1.5	11401	18092	15748	1.4	164	410	888

1200Z

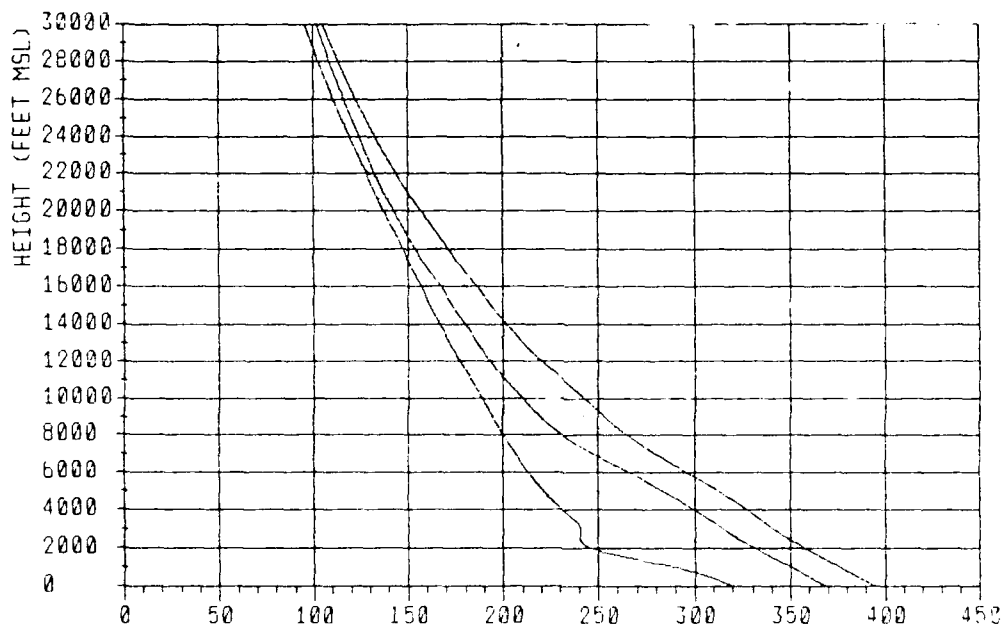
FIGURE B-2-3-D

B-31

N PERCENTILES



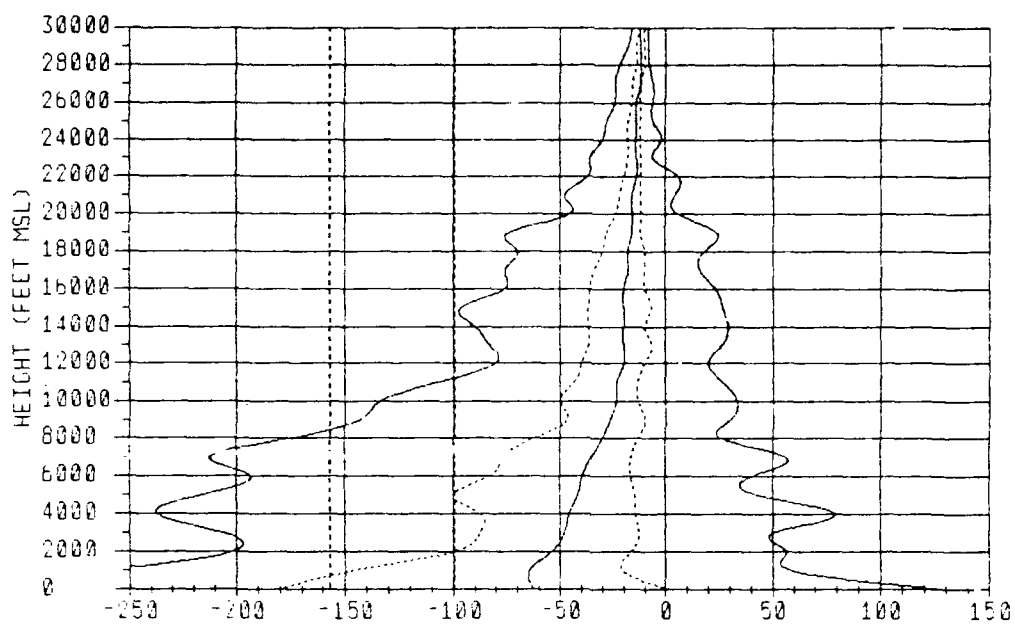
N (N-Units) 0000Z



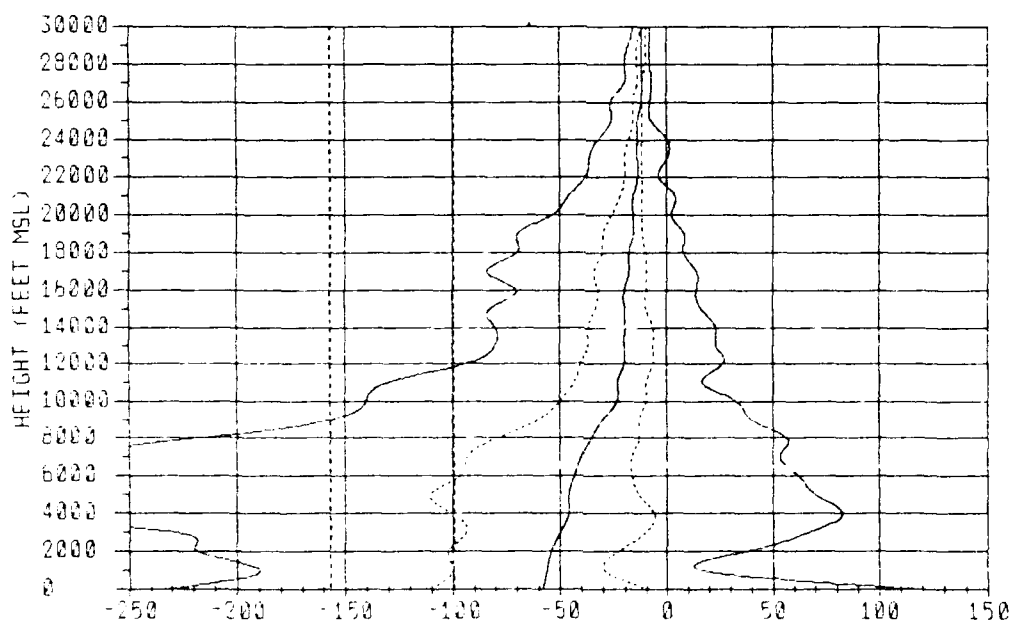
N (N-Units) 1200Z

FIGURE B-2-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-2-4-B

VERACRUZ

DRY-WET TRANSITION

WPT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
SPC-500	1286.91	1346.75	1371.19	1387.84	1398.25	-1477.12	-1381.88	-80.41	28.00	188.63	10.8	32.8	38.0
500-1000	1278.08	1333.75	1356.64	1377.06	1387.57	-1414.73	-1381.28	-86.68	-12.50	58.28	20.0	27.4	10.2
1000-1500	1279.10	1318.69	1348.28	1364.82	1378.77	-1280.14	-1301.41	-88.78	-20.83	52.17	17.7	28.9	8.7
1500-2000	1284.17	1308.49	1334.89	1353.58	1368.26	-1238.87	-1311.28	-80.41	-22.08	40.80	9.1	24.1	8.7
2000-2500	1280.37	1286.88	1328.00	1343.22	1358.59	-1202.08	-1308.28	-86.28	-18.78	50.00	4.7	18.0	8.8
2500-3000	1280.37	1286.38	1318.00	1333.78	1348.64	-1201.37	-1337.78	-80.00	-12.50	58.33	3.1	10.3	8.8
3000-3500	1241.18	1278.69	1308.18	1328.00	1337.78	-1188.00	-1307.00	-80.00	-12.50	58.42	4.1	7.2	8.8
3500-4000	1239.88	1288.41	1301.00	1317.88	1330.87	-1228.10	-1308.58	-47.81	-14.58	58.00	4.7	6.3	7.8
4000-4500	1232.18	1280.48	1293.18	1310.18	1324.00	-1237.50	-1305.41	-47.81	-18.68	64.87	4.2	7.4	7.8
4500-5000	1228.61	1281.10	1285.88	1303.18	1318.78	-1238.58	-1333.38	-43.78	-12.50	100.00	8.8	14.2	10.8
5000-6000	1222.21	1239.80	1272.38	1292.18	1304.08	-1218.88	-138.81	-41.88	-14.58	45.93	9.1	17.0	9.1
6000-7000	1214.88	1227.80	1288.40	1298.00	1288.38	-1388.78	-83.33	-38.58	-18.68	42.23	5.3	12.1	7.7
7000-8000	1207.80	1218.10	1240.70	1264.18	1277.28	-1213.47	-138.68	-38.41	-18.68	56.84	7.3	10.0	8.6
8000-9000	1200.78	1209.70	1227.48	1251.10	1264.28	-1173.30	-130.02	-28.88	-13.28	28.88	8.2	7.8	7.9
9000-10000	1184.30	1201.80	1217.20	1238.88	1251.40	-1130.07	-148.74	-28.88	-10.03	38.88	2.7	4.8	8.8
10000-11000	1187.70	1184.70	1209.00	1227.30	1238.30	-1138.84	-80.00	-23.30	-13.28	30.07	3.2	4.8	12.1
11000-12000	1182.10	1188.00	1200.40	1218.50	1227.83	-1000.00	-43.38	-23.30	-13.28	20.08	1.1	3.0	8.8
12000-13000	1178.81	1181.60	1182.70	1208.70	1218.88	-78.88	-138.87	-20.08	-10.03	20.08	1.1	1.4	8.8
13000-14000	1171.20	1178.32	1185.70	1198.70	1207.80	-83.33	-138.59	-20.08	-8.64	28.88	0.8	2.8	10.0
14000-15000	1168.80	1183.30	1179.00	1191.20	1198.80	-88.71	-138.59	-20.08	-8.80	28.88	1.4	2.4	8.8
15000-16000	1180.80	1183.80	1172.00	1183.80	1190.70	-93.38	-138.71	-18.82	-8.77	20.08	1.1	3.3	8.8
16000-17000	1188.80	1188.30	1185.70	1177.30	1183.87	-78.01	-134.08	-18.04	-10.00	28.00	0.2	2.1	8.4
17000-18000	1180.80	1182.80	1188.70	1193.80	1198.84	-78.88	-128.03	-17.88	-10.00	18.01	0.2	1.2	8.4
18000-19000	1188.80	1187.20	1182.40	1182.80	1188.81	-81.88	-130.00	-18.01	-10.00	23.88	0.8	2.7	8.8
19000-20000	1140.80	1142.20	1146.20	1158.00	1161.14	-82.03	-128.01	-18.01	-12.03	7.87	0.0	0.0	4.7
20000-21000	1138.80	1137.80	1141.10	1148.88	1154.80	-48.87	-23.88	-18.01	-12.03	8.02	0.2	0.8	4.2
21000-22000	1131.30	1133.20	1138.30	1143.80	1148.38	-44.03	-22.03	-18.84	-12.03	8.02	0.2	0.2	4.2
22000-23000	1128.83	1128.80	1131.80	1138.20	1142.10	-38.31	-20.00	-13.88	-11.88	2.03	0.0	0.0	3.1
23000-24000	1122.07	1124.20	1127.30	1132.50	1138.80	-33.88	-18.04	-13.88	-11.88	-4.04	0.0	0.3	1.3
24000-25000	1117.40	1120.10	1122.70	1127.10	1130.28	-32.02	-18.04	-13.88	-11.88	-2.03	0.0	0.2	2.7
25000-26000	1113.10	1118.20	1118.80	1122.20	1128.10	-28.83	-18.01	-13.88	-11.88	-5.84	0.0	0.0	1.1
26000-27000	1108.00	1112.40	1114.70	1117.70	1120.10	-23.88	-18.01	-12.03	-11.88	-8.02	0.0	0.0	1.1
27000-28000	1104.80	1108.20	1110.80	1113.20	1118.40	-22.03	-14.08	-12.03	-10.00	-7.87	0.0	0.0	0.8
28000-29000	1100.87	1104.80	1108.80	1108.70	1110.42	-18.04	-13.88	-12.03	-10.00	-8.08	0.0	0.0	0.3
29000-30000	88.87	101.30	103.10	104.80	108.40	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.8
30000-31000	83.47	88.00	88.70	101.40	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.3
31000-32000	88.88	84.70	88.30	88.00	88.00	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
32000-33000	88.40	81.10	82.80	84.50	88.40	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
33000-34000	82.80	87.80	88.40	80.80	81.80	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
34000-35000	80.30	88.70	88.80	87.80	88.40	-23.88	-11.88	-10.00	-8.08	-7.87	0.0	0.0	0.8

0000Z

HOT PT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
SPC-500	1328.87	1383.00	1374.38	1388.08	1397.58	-1285.29	-120.83	-82.08	40.44	181.14	12.2	24.1	38.2
500-1000	1311.08	1342.72	1364.68	1378.78	1388.78	-1202.08	-102.08	-80.41	-28.88	18.88	5.2	12.0	2.4
1000-1500	1297.24	1333.80	1358.28	1377.48	1377.48	-1208.87	-97.81	-88.33	-28.88	18.88	3.8	11.7	2.2
1500-2000	1280.92	1323.18	1348.78	1368.87	1368.38	-1200.81	-100.00	-88.28	-28.18	22.81	4.0	11.8	3.8
2000-2500	1248.28	1313.28	1338.18	1358.38	1359.88	-1208.79	-104.18	-88.28	-27.08	37.50	8.8	12.2	8.2
2500-3000	1243.53	1302.68	1328.28	1340.72	1350.14	-1233.33	-100.00	-82.08	-18.78	43.64	6.2	11.3	8.7
3000-3500	1239.88	1282.28	1317.88	1331.88	1340.88	-1231.28	-98.83	-80.00	-12.80	83.21	8.8	11.0	8.8
3500-4000	1235.88	1282.81	1308.88	1324.88	1334.11	-1218.28	-88.88	-47.81	-10.42	70.33	4.3	9.4	8.4
4000-4500	1231.88	1274.30	1302.80	1317.80	1328.21	-1207.31	-98.83	-48.83	-8.28	88.88	7.3	9.2	8.8
4500-5000	1228.33	1283.88	1284.88	1310.78	1321.08	-1241.88	-108.28	-48.83	-8.33	98.27	12.1	18.0	13.2
5000-6000	1218.80	1248.80	1281.83	1298.88	1310.78	-1277.08	-108.33	-43.78	-13.41	72.88	13.4	18.8	12.1
6000-7000	1211.80	1227.80	1284.08	1283.78	1283.88	-1202.08	-98.83	-43.38	-18.88	84.18	12.3	18.8	11.4
7000-8000	1208.80	1217.80	1248.00	1288.24	1278.88	-1278.88	-93.38	-38.58	-12.68	53.38	11.8	18.8	8.8
8000-9000	1188.81	1208.80	1228.80	1288.80	1288.80	-1218.34	-78.88	-33.33	-13.28	88.84	8.2	14.8	8.4
9000-10000	1182.80	1200.80	1217.20	1241.10	1251.00	-1138.88	-88.84	-28.88	-13.28	48.81	3.8	8.8	7.8
10000-11000	1187.20	1183.80	1208.10	1228.20	1240.20	-1143.34	-80.00	-23.30	-10.03	20.08	3.8	4.8	7.7
11000-12000	1181.21	1187.00	1198.80	1217.00	1228.88	-128.32	-43.38	-20.08	-9.80	18.82	3.3	4.8	7.2
12000-13000	1178.80	1180.70	1181.30	1207.70	1217.78	-88.87	-38.87	-20.08	-8.64	28.88	1.7	2.7	9.7
13000-14000	1170.20	1174.40	1184.80	1199.40	1208.48	-83.33	-38.71	-20.08	-8.64	23.30	1.0	1.7	10.5
14000-15000	1168.80	1168.80	1178.00	1191.40	1198.88	-78.88	-38.88	-18.82	-8.77	23.30	1.3	1.4	8.1
15000-16000	1180.10	1183.10	1171.20	1184.80	1191.28	-78.88	-33.33	-18.82	-10.03	13.28	0.3	2.3	8.8
16000-17000	1188.80	1187.80	1188.30	1177.70	1184.00	-77.88	-32.03	-17.88	-10.00	14.08	0.8	1.4	8.3
17000-18000	1180.80	1182.80	1188.80	1170.30	1178.10	-80.00	-32.03	-17.88	-10.00	10.00	1.3	1.8	8.5
18000-19000	1188.81	1188.80	1181.70	1183.22	1188.77	-81.32	-28.04	-18.01	-10.00	10.00	1.7	1.7	7.4
19000-20000	1140.30	1142.00	1148.60	1158.80	1161.00	-88.01	-28.04	-18.01	-12.03	1.98	0.8	0.4	3.2
20000-21000	1138.70	1137.40	1140.80	1148.10	1154.00	-81.88	-23.88	-18.01	-12.03	2.03	0.3	0.7	3.1
21000-22000	1131.20	1132.80	1138.80	1143.00	1148.08	-43.88	-22.03	-14.08	-12.03	8.84	0.0	0.3	3.4
22000-23000	1128.71	1128.70	1131.40	1137.30	1142.08	-38.01	-20.00	-13.88	-11.88	-2.03	0.3	0.3	2.8
23000-24000	1127.80	1128.00	1128.80	1131.70	1138.20	-33.88	-18.04	-13.88	-11.88	0.00	0.0	0.1	3.1
24000-25000	1118.78	1118.80	1127.78	1128.40	1130.30	-30.00	-17.88	-13.88	-11.88	-3.88	0.0	0.3	2.5
25000-26000	1112.48	1118.00	1118.20	1121.80	1128.12	-28.01	-18.01	-13.88	-11.88	-7.87	0.0	0.0	0.8
26000-27000	1108.38	1112.20	1114.30	1117.80	1120.00	-22.03	-18.01	-12.03	-11.88	-7.87	0.0	0.0	0.3
27000-28000	1104.12	1108.10	1110.30	1112.80	1118.80	-20.00	-14.08	-12.03	-10.00	-7.87	0.0	0.0	1.0
28000-29000	88.88	104.50	108.40	108.80	110.80	-18.04	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.7
29000-30000	88.20	101.20	102.80	104.70	108.40	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	1.4
30000-31000	82.70	87.80	88.80	101.20	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
31000-32000	88.30	84.70	88.30	87.80	88.10	-18.04	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.3
32000-33000	88.80	81.10	82.70	84.40	85.80	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	82.80	87.80	88.30	80.80	81.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	80.00	88.70	88.80	87.80	84.70	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0

VERACRUZ

DRY-WET TRANSITION

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
		10%	50%	90%			10%	50%	90%			10%	50%	90%			10%	50%	90%
SFC-500	30.8	98	253	775	32.8	98	295	1181	92.8	98	1237	34978	36.0	118	263	581			
500-1000	12.5	197	492	888	16.3	98	492	1211	18.3	98	2953	19384	2.2	98	295	728			
1000-1500	7.2	295	492	888	13.9	98	394	1260	18.8	98	3937	33794	4.2	394	888	1811			
1500-2000	3.3	197	492	888	9.1	98	295	1083	18.8	98	3347	33302	2.7	295	492	1848			
2000-2500	1.6	108	443	591	5.9	98	344	787	10.8	98	2854	32988	3.8	148	840	1230			
2500-3000	2.0	278	591	848	4.5	98	394	1338	11.3	98	3937	32218	4.1	278	984	2284			
3000-3500	3.0	98	492	888	4.1	98	492	1083	8.8	98	1132	8388	3.0	98	492	1782			
3500-4000	2.7	197	492	807	4.5	98	492	884	8.8	98	4380	31840	3.8	98	888	1378			
4000-4500	2.2	148	443	738	3.4	98	295	807	8.8	98	1132	30890	2.3	197	840	1048			
4500-5000	4.4	197	394	787	11.5	98	394	918	14.5	453	8791	30388	5.0	98	591	2028			
5000-6000	5.8	98	394	810	8.7	98	492	787	19.8	98	8387	29798	5.2	98	443	1578			
6000-7000	3.5	138	394	591	8.8	98	394	689	13.2	98	8594	28872	4.5	98	591	1088			
7000-8000	5.8	98	394	591	7.8	98	394	689	12.0	98	3988	27425	5.8	98	443	1088			
8000-9000	4.5	98	295	492	5.8	98	295	610	13.3	98	4281	27002	5.8	98	591	1878			
9000-10000	1.7	98	295	472	3.3	98	197	630	7.8	98	2758	25624	5.3	98	492	1033			
10000-11000	3.2	98	197	492	4.1	98	197	492	13.3	295	8388	24938	6.8	98	591	1280			
11000-12000	0.8	98	295	394	2.4	98	295	423	8.2	98	5020	23784	4.7	98	888	1318			
12000-13000	0.9	98	98	285	1.4	98	197	285	9.7	98	3891	22818	6.1	98	888	1478			
13000-14000	0.8	98	98	197	2.4	98	197	344	8.0	98	4891	21687	6.4	98	787	1378			
14000-15000	1.4	98	98	197	2.1	98	197	344	8.9	98	5413	20703	4.7	98	394	1388			
15000-16000	1.1	98	98	197	3.2	98	197	285	8.8	98	3708	18830	5.9	98	381	1278			
16000-17000	0.2	184	184	184	1.8	184	230	328	7.7	1840	18209	18832	8.7	184	888	984			
17000-18000	0.2	184	184	184	1.2	184	184	184	4.8	787	17228	17881	3.8	184	874	1188			
18000-19000	0.5	184	184	184	2.7	184	184	328	10.0	1280	15812	16733	7.4	184	492	984			
19000-20000	0.0				0.0				4.0	1840	15092	18748	3.3	197	492	820			

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BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
		10%	50%	90%			10%	50%	90%			10%	50%	90%			10%	50%	90%
SFC-500	12.2	115	253	492	24.1	98	253	1083	95.1	345	4330	34978	35.2	154	283	351			
500-1000	1.8	98	492	591	4.8	98	295	1142	8.8	98	3180	13130	0.7	394	787	1083			
1000-1500	2.4	197	394	679	5.8	98	591	1181	7.0	187	2904	33981	1.2	492	787	1280			
1500-2000	2.8	98	492	787	8.4	98	541	1280	5.1	98	1181	11772	2.2	98	689	1858			
2000-2500	3.9	98	394	718	4.9	98	591	1181	8.5	98	2087	23032	3.0	98	738	1318			
2500-3000	3.9	187	492	617	6.2	98	591	1132	8.3	98	2188	12839	3.6	187	689	1398			
3000-3500	3.1	118	394	787	5.8	98	394	1083	9.4	98	1478	12343	4.8	98	591	1478			
3500-4000	2.4	98	394	620	4.8	98	591	888	9.1	98	1280	16100	4.8	148	888	1280			
4000-4500	5.5	278	492	689	5.1	98	394	888	6.4	98	591	30801	4.0	98	689	1083			
4500-5000	8.0	197	295	689	10.9	98	394	1083	18.0	98	5218	30349	6.4	197	591	1378			
5000-6000	9.1	197	492	787	12.4	98	394	888	21.2	98	4429	28581	6.8	98	689	1280			
6000-7000	8.2	98	394	689	12.8	98	295	787	18.8	98	3248	28774	5.8	98	492	1427			
7000-8000	8.8	187	394	591	12.4	98	295	689	18.2	98	8595	27888	5.3	197	689	1858			
8000-9000	6.1	98	295	492	11.0	98	295	591	17.1	98	7089	26804	4.8	187	689	1778			
9000-10000	2.3	98	248	423	4.2	98	197	483	10.5	98	3445	25752	4.8	98	492	1088			
10000-11000	3.8	98	197	394	4.5	98	197	423	11.4	98	5544	24938	4.2	98	888	1488			
11000-12000	3.0	98	197	394	3.8	98	148	394	9.0	98	4858	23852	3.8	98	443	1578			
12000-13000	1.3	98	197	295	2.2	98	98	295	7.9	98	8791	22770	8.2	98	689	1280			
13000-14000	1.0	98	98	295	1.7	98	197	453	8.4	98	8582	21788	8.1	98	541	1378			
14000-15000	1.3	98	98	295	1.4	98	98	285	8.8	98	4183	20781	4.3	98	394	1088			
15000-16000	0.3	98	148	197	2.0	98	187	335	7.2	98	3811	19718	4.8	98	295	1043			
16000-17000	0.9	98	184	285	1.3	131	328	328	5.8	436	18209	18838	3.8	184	888	1181			
17000-18000	1.3	144	144	144	1.8	164	164	164	5.8	541	17228	17881	3.3	184	492	1148			
18000-19000	1.7	184	184	184	1.7	164	164	278	10.0	1181	15812	16733	6.2	184	492	820			
19000-20000	0.8	184	184	184	0.4	184	184	328	2.8	620	14828	18748	2.8	184	492	820			

1200Z

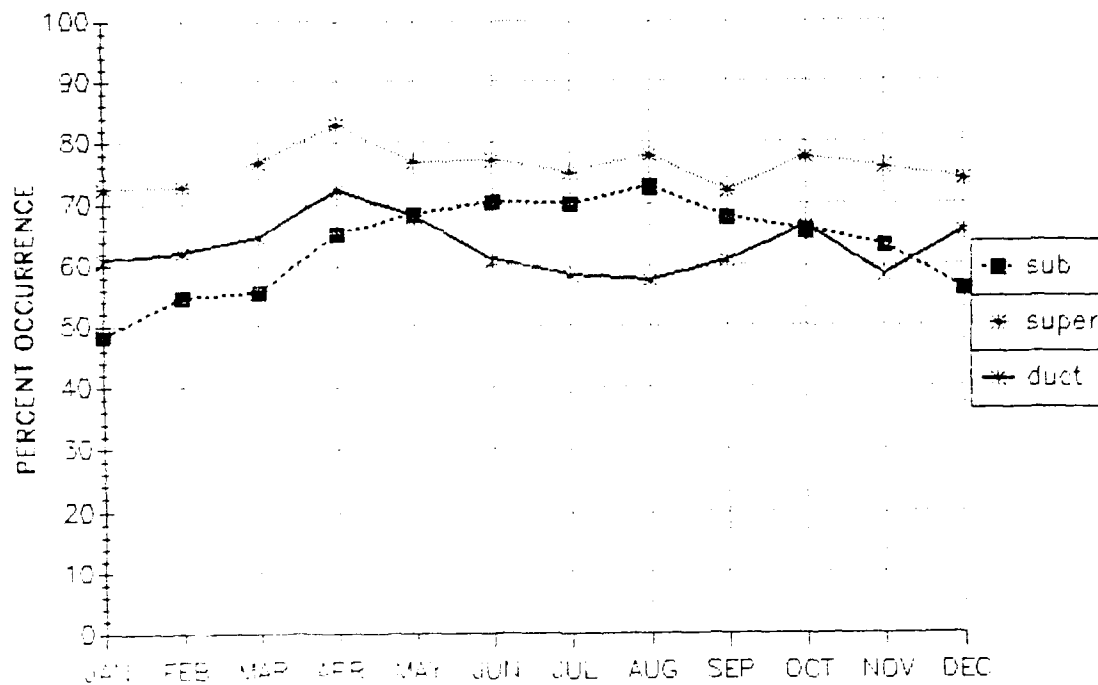
FIGURE B-2-4-D

B-35

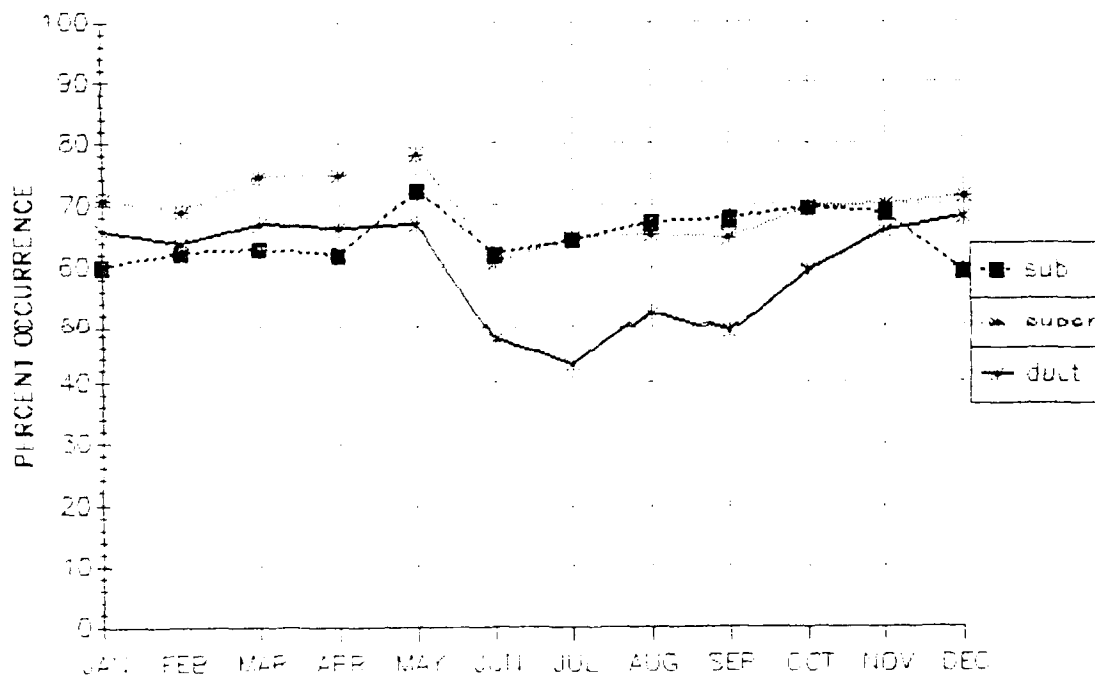
VERACRUZ

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY



0000Z

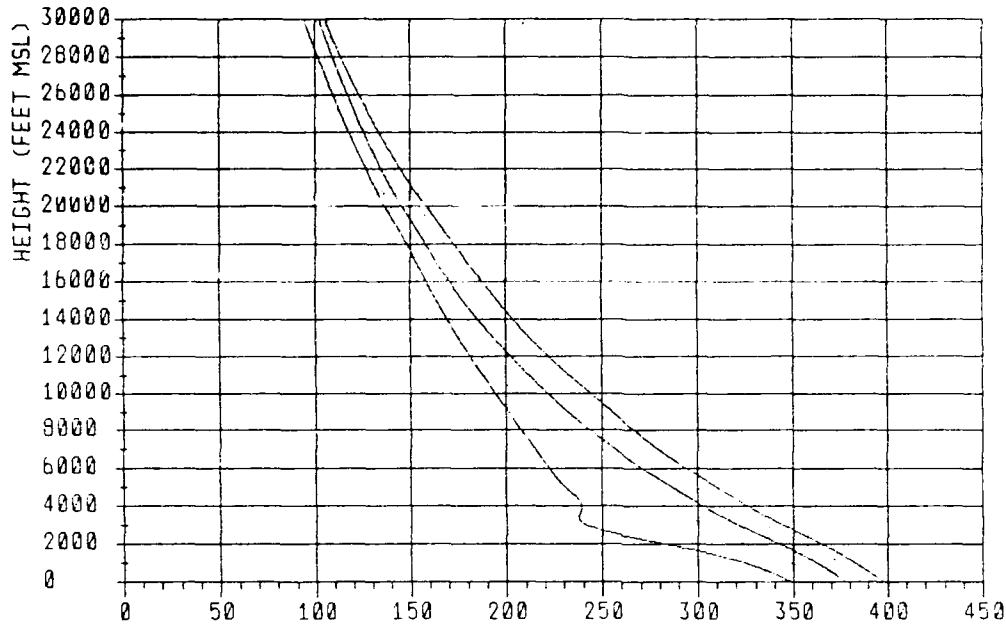


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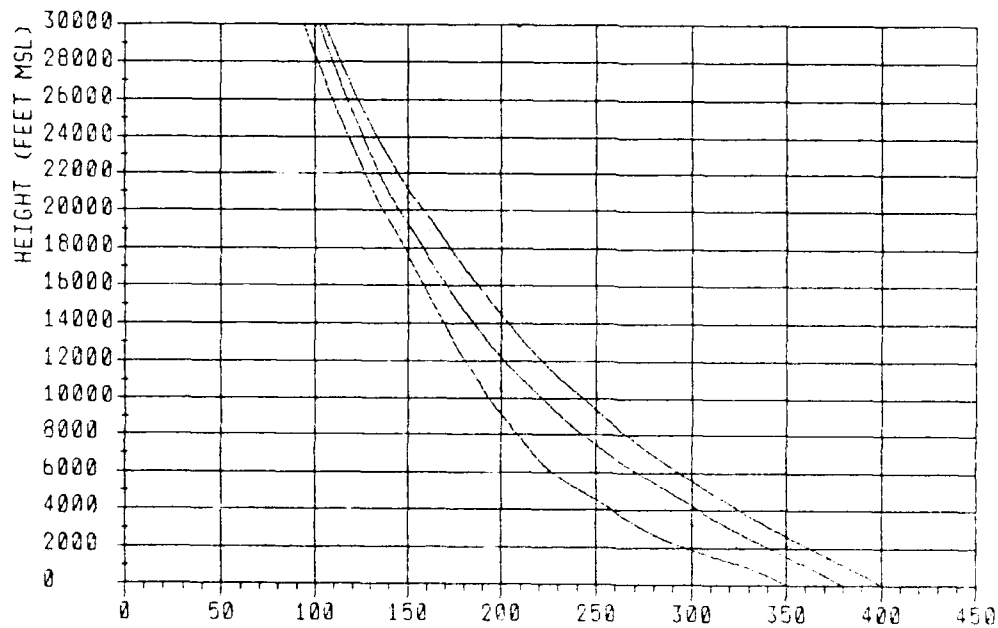
FIGURE B-2-5

B-36

N PERCENTILES



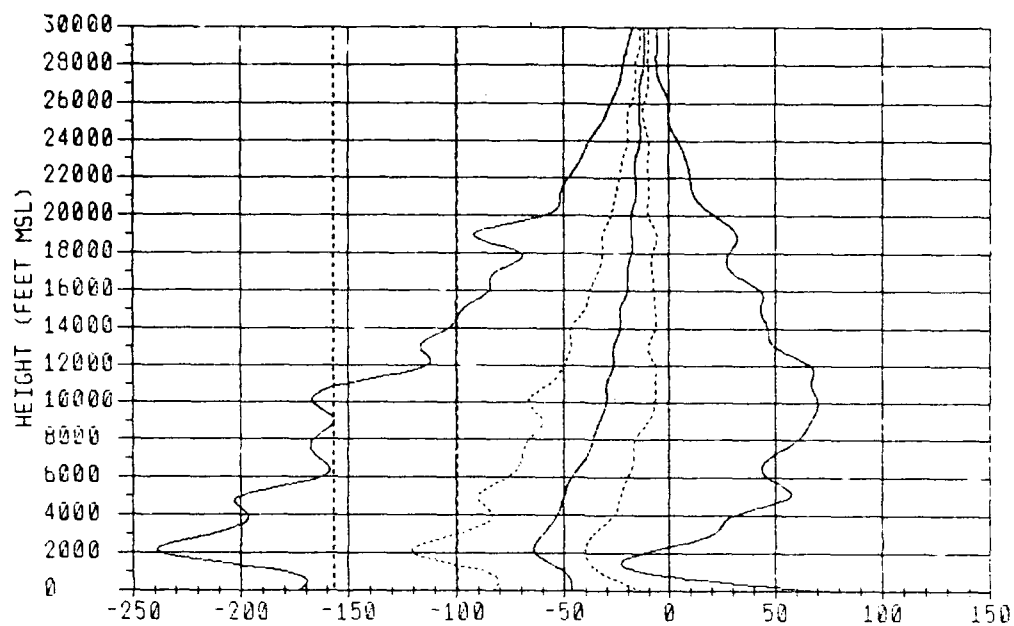
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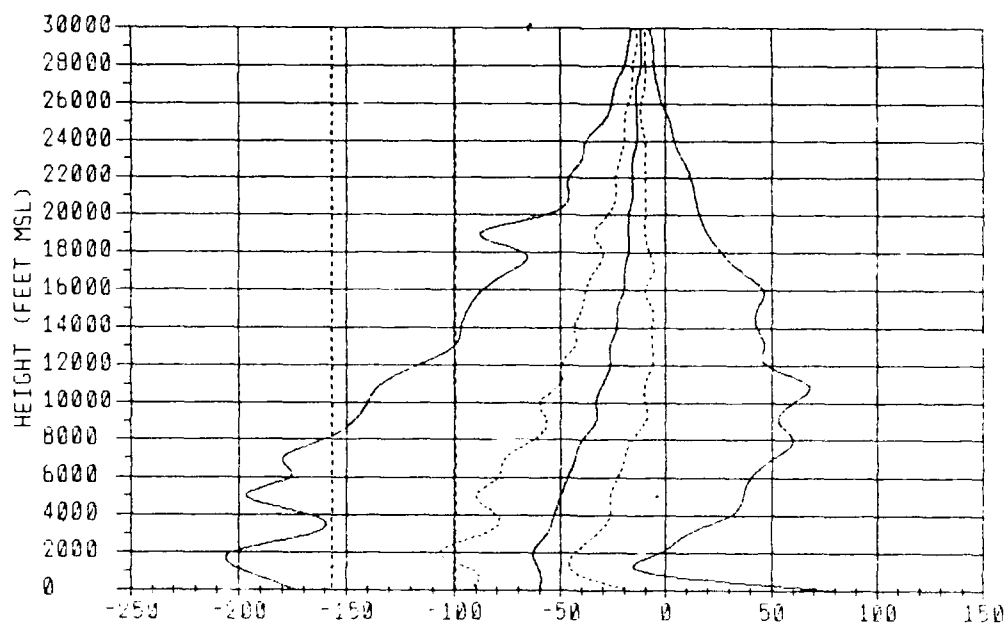
N (N-Units) 1200Z

FIGURE B-3-1-A

GRADIENT PERCENTILES



DNDH (N-Unit/KM) 0000Z



DNDH (N-Unit/KM) 1200Z

FIGURE B-3-1-B

CWEN ROBERTS

WET SEASON

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUOT	OCCURRENCE	
		10%	50%	80%	95%		10%	50%	80%	95%		SRLR	SUB
500-1000	358.00	371.25	382.18	391.50	399.58	-218.88	-104.18	-43.78	20.83	182.50	7.9	17.2	30.7
1000-1500	343.88	362.88	374.80	384.38	392.75	-120.83	-70.83	-80.00	-11.88	-10.42	0.8	2.8	0.8
1500-2000	334.47	354.87	367.08	378.75	384.08	-188.28	-77.08	-80.00	-31.28	-12.50	2.0	5.3	0.7
2000-2500	322.87	345.08	359.00	368.00	378.00	-200.18	-87.91	-52.08	-33.33	-18.88	4.6	12.2	0.7
2500-3000	310.08	333.88	348.18	360.18	367.00	-280.00	-120.83	-60.41	-37.50	-18.78	8.8	18.8	0.8
3000-3500	282.82	320.84	338.75	349.00	358.24	-218.88	-118.88	-68.88	-35.38	-4.17	7.5	20.0	1.8
3500-4000	272.73	308.87	328.00	337.18	348.08	-214.58	-104.18	-82.50	-37.50	14.80	4.8	13.0	2.4
4000-4500	280.74	298.58	318.18	327.88	338.50	-214.58	-89.58	-58.33	-33.33	14.88	4.0	8.8	2.8
4500-5000	248.87	288.78	308.50	318.82	327.18	-208.41	-83.33	-84.18	-27.08	23.00	3.8	8.0	3.8
5000-6000	238.88	278.78	298.38	310.78	319.08	-188.58	-83.33	-82.08	-28.00	48.21	4.2	10.3	8.8
6000-7000	228.84	268.28	288.38	299.50	309.08	-193.78	-87.50	-50.00	-22.91	51.18	7.1	13.8	8.8
7000-8000	221.40	245.80	268.78	284.18	292.78	-184.58	-78.58	-43.78	-20.83	50.00	4.7	10.3	8.4
8000-9000	213.81	233.00	258.30	270.78	279.00	-188.53	-72.91	-39.97	-18.78	50.00	5.8	10.7	10.0
9000-10000	208.70	222.20	242.00	257.28	265.78	-188.88	-68.88	-38.71	-18.88	53.28	6.4	10.1	13.4
10000-11000	198.20	212.80	232.80	244.50	253.40	-183.38	-60.02	-33.33	-10.03	58.92	4.8	8.0	18.8
11000-12000	182.70	203.80	218.50	233.20	241.90	-183.28	-88.88	-30.07	-9.90	68.88	8.0	11.3	18.8
12000-13000	185.80	193.11	208.10	222.40	230.40	-138.72	-53.38	-28.88	-8.77	68.88	4.1	7.1	18.8
13000-14000	178.70	188.40	200.10	212.60	219.40	-113.44	-50.00	-28.88	-8.84	68.88	2.4	5.4	18.8
14000-15000	173.30	178.20	191.20	204.00	210.00	-118.88	-48.81	-28.88	-8.84	53.38	2.1	6.1	17.8
15000-16000	167.80	171.40	183.00	195.50	201.10	-103.58	-43.38	-23.30	-8.84	48.81	2.1	4.7	18.8
16000-17000	162.10	165.40	175.40	187.80	193.00	-98.74	-38.97	-23.30	-8.77	43.38	1.3	4.3	14.8
17000-18000	158.80	159.80	168.70	180.50	188.72	-83.48	-38.01	-20.08	-8.77	38.88	0.8	2.7	14.8
18000-19000	151.83	154.20	162.00	172.70	177.50	-78.98	-33.98	-20.00	-7.97	30.00	0.8	1.3	13.8
19000-20000	145.70	148.40	158.70	168.40	170.30	-88.04	-33.98	-18.04	-8.02	30.00	2.7	2.7	18.3
20000-21000	140.30	142.80	148.20	157.80	162.30	-82.03	-30.00	-17.98	-10.00	27.71	0.0	0.8	12.2
21000-22000	135.10	138.10	143.70	151.60	155.50	-81.95	-27.98	-17.98	-10.00	22.03	0.1	0.8	10.7
22000-23000	130.10	133.40	138.40	145.40	149.20	-48.04	-26.01	-18.01	-10.00	13.98	0.1	0.4	8.8
23000-24000	125.40	128.00	133.40	139.60	143.10	-48.08	-23.98	-18.01	-10.00	10.00	0.1	0.3	7.3
24000-25000	120.10	124.20	128.38	133.80	137.20	-38.04	-20.00	-14.08	-10.00	4.53	0.0	0.1	8.8
25000-26000	118.80	120.00	123.60	128.20	131.00	-38.01	-20.00	-13.98	-10.00	3.98	0.1	0.0	5.0
26000-27000	111.40	118.00	118.20	123.20	125.70	-27.98	-18.04	-13.98	-11.98	-1.88	0.0	0.0	2.7
27000-28000	107.30	112.20	118.10	118.80	120.70	-28.01	-18.01	-13.98	-11.98	-2.03	0.0	0.0	2.8
28000-29000	102.80	108.00	110.90	113.80	118.90	-22.03	-18.01	-12.03	-10.00	-3.98	0.0	0.0	1.8
29000-30000	98.00	104.00	108.80	109.10	110.80	-20.00	-14.08	-12.03	-10.00	-8.94	0.0	0.0	1.0
30000-31000	95.33	101.10	103.20	105.20	108.60	-17.98	-13.98	-11.98	-10.00	-8.02	0.0	0.0	0.8
31000-32000	91.80	97.90	98.80	101.80	102.70	-18.01	-12.03	-11.98	-10.00	-7.97	0.0	0.0	0.0
32000-33000	88.50	94.70	98.40	98.10	99.10	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
33000-34000	84.80	91.10	92.90	94.60	95.50	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
34000-35000	81.70	87.90	88.40	90.90	91.80	-28.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
35000-36000	78.40	85.80	88.80	87.70	88.30	-28.01	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

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HGT	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
FT MSL	1%	10%	50%	80%	95%	1%	10%	50%	80%	95%	DUCT	SRLR	SUB
500-800	359.58	375.06	385.56	394.50	403.18	-208.12	-102.08	-84.18	33.33	280.08	8.8	20.4	42.2
500-1000	348.65	364.75	378.00	388.50	394.38	-120.83	-83.33	-80.41	-41.88	-10.42	0.8	3.8	0.7
1000-1500	338.18	355.25	368.88	378.75	383.58	-188.88	-85.41	-80.41	-41.88	-10.42	2.4	8.0	0.8
1500-2000	328.78	344.88	357.08	367.18	374.18	-210.41	-85.83	-82.50	-43.75	-12.50	5.4	10.4	1.0
2000-2500	311.52	333.18	348.78	357.28	364.28	-210.41	-110.41	-84.58	-43.83	-2.08	5.1	15.4	1.8
2500-3000	293.18	320.25	335.38	348.50	354.08	-204.18	-102.08	-82.50	-43.75	-4.17	4.8	13.3	2.1
3000-3500	281.18	308.25	324.58	335.51	343.18	-184.58	-88.58	-58.33	-35.41	12.50	2.7	8.3	2.7
3500-4000	272.41	300.08	315.88	328.88	334.25	-170.83	-83.33	-58.25	-31.25	20.93	2.8	8.1	3.2
4000-4500	262.07	291.25	307.18	318.80	328.04	-170.83	-83.33	-54.18	-27.08	18.78	2.8	8.8	4.1
4500-5000	254.00	282.58	299.08	310.38	317.88	-183.33	-83.33	-82.08	-28.00	37.50	3.3	8.3	8.8
5000-6000	240.84	268.25	288.18	299.08	307.88	-192.87	-88.58	-50.00	-25.00	37.50	8.7	14.3	7.5
6000-7000	228.90	247.40	270.18	283.80	291.58	-178.48	-78.18	-45.83	-22.81	41.88	8.3	12.4	8.1
7000-8000	218.70	233.40	258.80	269.88	278.08	-178.08	-73.43	-43.23	-19.82	58.84	5.8	10.8	10.8
8000-9000	207.60	221.80	241.70	258.18	264.78	-188.02	-63.41	-37.50	-18.88	53.28	5.4	9.8	12.3
9000-10000	198.30	211.30	229.80	243.40	251.80	-138.87	-88.84	-33.33	-10.03	58.84	3.9	7.3	13.4
10000-11000	191.80	202.30	218.50	232.20	240.71	-138.87	-88.88	-30.07	-10.03	60.02	4.1	8.1	17.1
11000-12000	185.80	193.00	208.10	221.70	229.20	-133.33	-50.00	-28.88	-10.03	63.28	4.4	7.8	14.8
12000-13000	178.30	185.30	199.80	212.10	219.50	-118.88	-50.00	-28.88	-8.84	53.38	2.8	5.0	15.1
13000-14000	173.10	178.30	191.20	203.70	208.98	-100.00	-43.38	-28.88	-8.84	48.74	1.8	4.8	18.2
14000-15000	167.30	171.50	183.00	195.10	201.10	-100.00	-43.23	-23.30	-8.84	48.81	1.4	4.3	19.0
15000-16000	162.00	165.80	175.50	187.40	192.81	-88.97	-38.97	-23.30	-8.77	43.38	1.3	3.8	14.3
16000-17000	158.70	160.00	168.90	178.80	185.50	-82.39	-38.98	-21.98	-7.97	38.04	0.8	3.0	18.2
17000-18000	151.70	154.20	162.10	172.20	177.40	-73.98	-32.03	-20.00	-7.97	38.01	0.8	1.8	14.8
18000-19000	145.73	148.50	155.80	165.20	170.10	-82.03	-32.03	-18.04	-7.97	28.01	3.1	3.0	14.8
19000-20000	140.20	142.80	148.80	157.80	162.10	-81.95	-30.00	-17.98	-10.00	18.01	0.1	0.7	8.3
20000-21000	135.10	138.00	143.20	151.30	155.40	-58.01	-26.01	-17.98	-10.00	18.01	0.1	0.7	8.8
21000-22000	130.10	133.40	138.20	145.20	149.08	-48.01	-23.98	-18.01	-10.00	13.98	0.1	0.2	7.8
22000-23000	125.40	129.00	133.30	139.50	142.90	-43.98	-22.03	-18.01	-10.00	11.98	0.1	0.0	7.8
23000-24000	120.10	124.20	128.40	133.70	138.97	-38.04	-20.00	-14.08	-10.00	4.08	0.1	0.0	8.3
24000-25000	118.80	119.80	123.70	128.00	130.80	-33.98	-20.00	-13.98	-10.00	3.98	0.1	0.1	8.7
25000-26000	111.40	118.00	118.20	123.10	125.50	-28.04	-18.04	-13.98	-11.98	0.00	0.0	0.1	3.0
26000-27000	107.30	112.20	118.10	118.80	120.80	-24.08	-18.01	-13.98	-11.98	-2.03	0.0	0.0	1.8
27000-28000	102.80	108.00	110.90	113.80	118.90	-22.03	-18.01	-12.03	-10.00	-8.94	0.0	0.0	1.2
28000-29000	98.00	104.00	108.80	109.10	110.72	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.8
29000-30000	95.30	101.03	103.20	105.20	108.70	-17.98	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.2
30000-31000	91.80	97.80	98.80	101.80	102.80	-18.01	-12.03	-11.98	-10.00	-7.97	0.0	0.0	0.3
31000-32000	88.50	94.80	98.40	98.10	99.10	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
32000-33000	84.80	91.00	92.90	94.60	95.50	-22.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
33000-34000	81.70	87.90	88.40	90.80	91.80	-28.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	78.50	85.70	86.80	87.70	88.30	-23.98	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
FC-500	7.8	91	235	384	17.2	98	285	394	99.2	1270	4419	21310	30.7	99	285	384
00-1000	0.4	98	285	492	0.8	98	443	1260	1.4	98	8809	34581	0.2	98	492	747
00-1500	1.8	98	492	709	4.3	98	787	1181	1.8	98	4038	29883	0.5	98	787	1181
00-2000	3.7	197	394	991	9.2	98	889	1379	4.1	98	8810	33341	0.3	197	394	1181
00-2500	5.9	197	394	999	11.6	98	991	1161	7.5	98	6004	17743	0.5	98	394	1181
00-3000	4.0	118	394	787	8.9	98	492	1181	11.8	492	4183	15718	1.2	98	492	1181
00-3500	2.7	197	394	758	4.3	98	394	1083	10.0	246	3150	11318	1.3	98	394	955
00-4000	2.4	197	394	810	4.8	98	295	984	7.4	187	3051	13130	1.8	98	492	1004
00-4500	2.4	177	295	999	4.8	98	344	1083	5.3	98	2854	27881	2.2	157	991	925
00-5000	2.9	98	295	991	8.4	98	295	787	10.2	98	9493	26480	3.8	98	295	787
00-6000	5.9	98	295	492	10.2	98	295	787	22.6	98	5315	29443	6.8	98	394	1083
00-7000	4.2	98	295	394	8.0	98	295	689	11.7	98	2858	12858	6.8	118	492	1181
00-8000	4.8	98	197	394	8.4	98	295	689	14.7	98	2284	11037	6.3	98	394	984
00-9000	5.7	98	197	295	8.2	98	295	492	18.5	98	1989	23301	10.9	98	492	1181
00-10000	4.1	98	197	305	8.9	98	197	394	14.9	98	1378	11981	11.0	98	394	945
100-11000	5.4	98	197	394	10.4	98	197	394	20.2	98	2067	24541	12.2	98	394	1073
100-12000	3.8	98	197	295	8.1	98	197	394	18.9	98	2067	23183	12.1	98	492	1083
100-13000	2.3	98	98	295	5.0	98	197	315	15.8	98	2858	22179	11.5	98	492	984
100-14000	2.0	98	197	197	5.7	98	197	295	18.5	98	1870	21293	12.4	98	394	866
100-15000	2.0	98	98	197	4.8	98	197	295	19.0	98	3150	20585	11.2	98	394	886
100-16000	1.3	98	98	197	4.0	98	197	295	15.0	98	2953	19840	10.1	98	394	787
100-17000	0.8	102	184	223	2.6	131	184	295	11.5	282	2788	18837	11.5	184	492	902
100-18000	0.5	184	184	184	1.3	184	184	184	11.0	492	3117	17553	10.1	184	492	820
100-19000	2.7	184	184	184	2.7	184	184	184	19.6	658	15912	16589	15.3	184	328	856
100-20000	0.0				0.8	184	184	184	11.3	738	14928	15748	6.4	184	492	820

0000Z

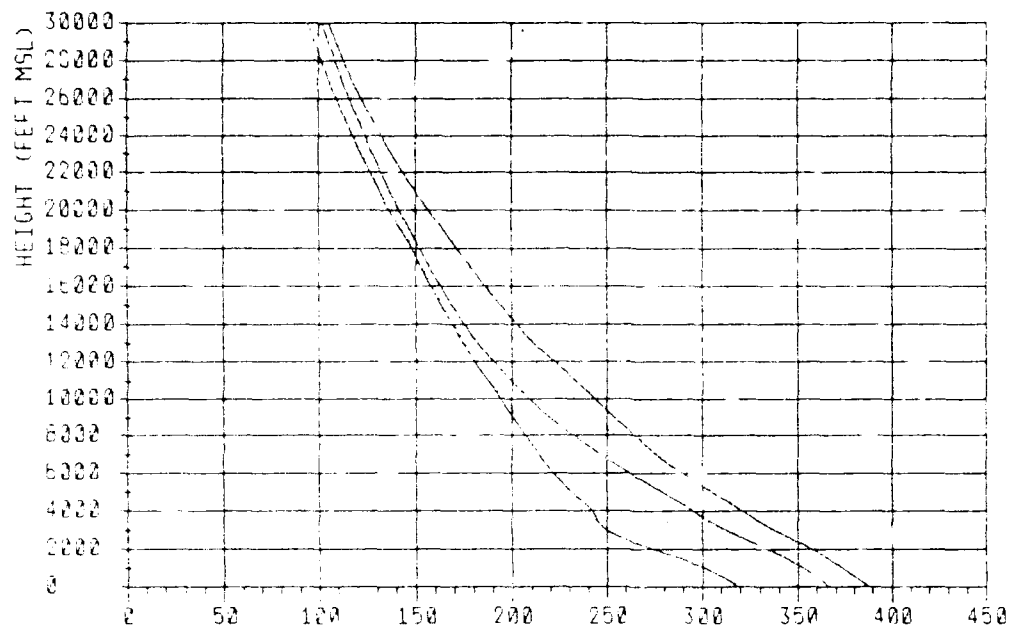
BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	8.6	91	197	384	20.4	98	197	689	98.9	98	5359	34877	42.2	99	285	384
500-1000	0.3	98	492	984	0.8	98	98	748	2.0	98	3051	24525	0.1	295	640	984
000-1500	2.2	246	492	889	4.0	98	840	1152	2.2	259	4527	33833	0.4	98	991	1575
500-2000	3.6	197	394	999	7.1	98	991	984	4.4	98	4527	18019	0.6	98	492	989
000-2500	2.8	197	394	991	9.2	98	492	1181	6.7	187	3837	15068	1.0	167	443	1359
500-3000	3.1	197	394	999	5.8	98	394	984	9.7	738	3886	15863	1.2	98	492	984
000-3500	1.3	98	394	999	3.4	98	394	1181	7.4	98	2559	14367	1.5	98	394	886
500-4000	1.8	157	295	630	3.5	98	492	984	4.8	98	1869	22002	1.9	118	991	1280
000-4500	1.8	98	394	991	3.7	98	443	787	4.8	98	1772	10571	2.5	276	991	686
500-5000	2.5	197	295	689	5.9	98	295	738	9.8	98	5216	30250	4.3	197	394	905
1000-6000	5.4	197	295	991	11.3	98	394	787	22.2	295	6053	29581	5.0	98	492	984
1000-7000	5.1	98	295	492	9.8	98	394	689	13.0	98	3101	28380	6.3	108	492	984
000-8000	4.8	98	295	394	7.8	98	295	991	14.7	98	2067	15289	8.1	98	492	886
1000-9000	4.8	98	197	394	7.9	98	295	492	14.5	98	1772	15584	8.5	197	492	1181
1000-10000	3.4	98	197	325	8.0	98	295	492	12.4	98	1478	15820	9.8	98	492	984
1000-11000	3.9	98	197	295	7.0	98	197	492	17.8	98	2067	24541	11.2	98	394	984
000-12000	4.1	98	98	295	8.8	98	197	394	15.7	98	1870	23429	10.8	197	492	984
1000-13000	2.5	98	197	295	4.5	98	197	295	13.9	98	2313	22474	10.7	98	492	1053
1000-14000	1.7	98	98	197	4.2	98	197	295	15.4	98	3268	21887	11.3	98	394	886
1000-15000	1.3	98	98	197	4.0	98	98	295	12.7	98	2674	20806	11.1	98	394	886
1000-16000	1.3	98	98	197	3.7	98	197	197	13.0	98	2758	19820	9.6	98	394	820
000-17000	0.5	98	184	184	2.5	98	184	315	12.5	328	2297	18701	11.1	184	478	984
000-18000	0.5	184	184	184	1.4	184	184	328	12.3	492	3837	17717	10.5	184	492	820
1000-19000	3.1	184	184	184	3.0	184	184	184	17.8	658	15912	16589	11.8	184	328	856
1000-20000	0.1	184	184	184	0.7	184	184	328	8.8	492	14928	15748	6.9	184	328	856

1200Z

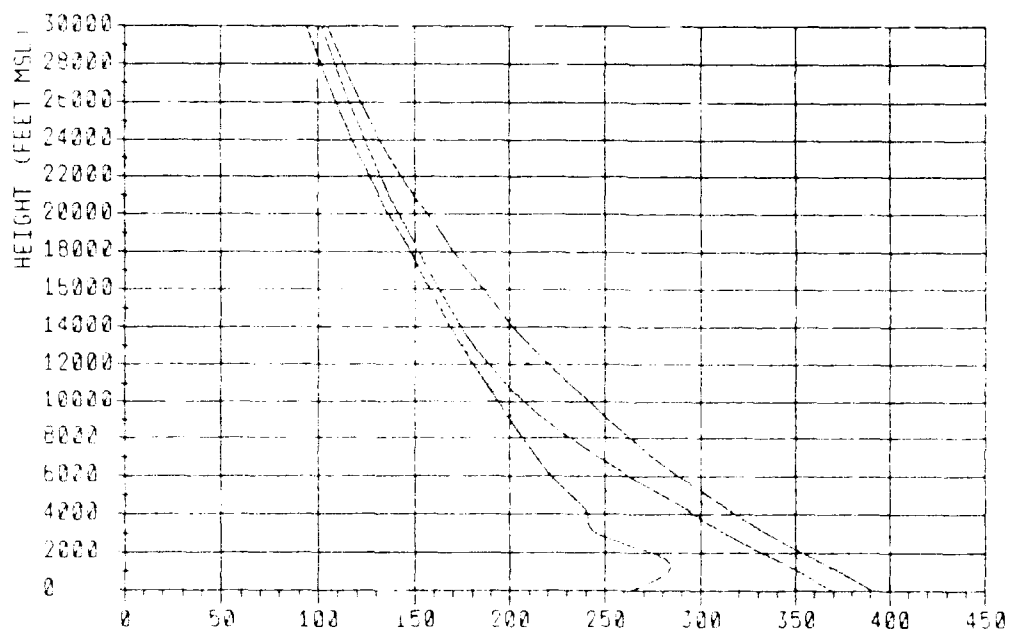
FIGURE B-3-1-D

B-40

N PERCENTILES



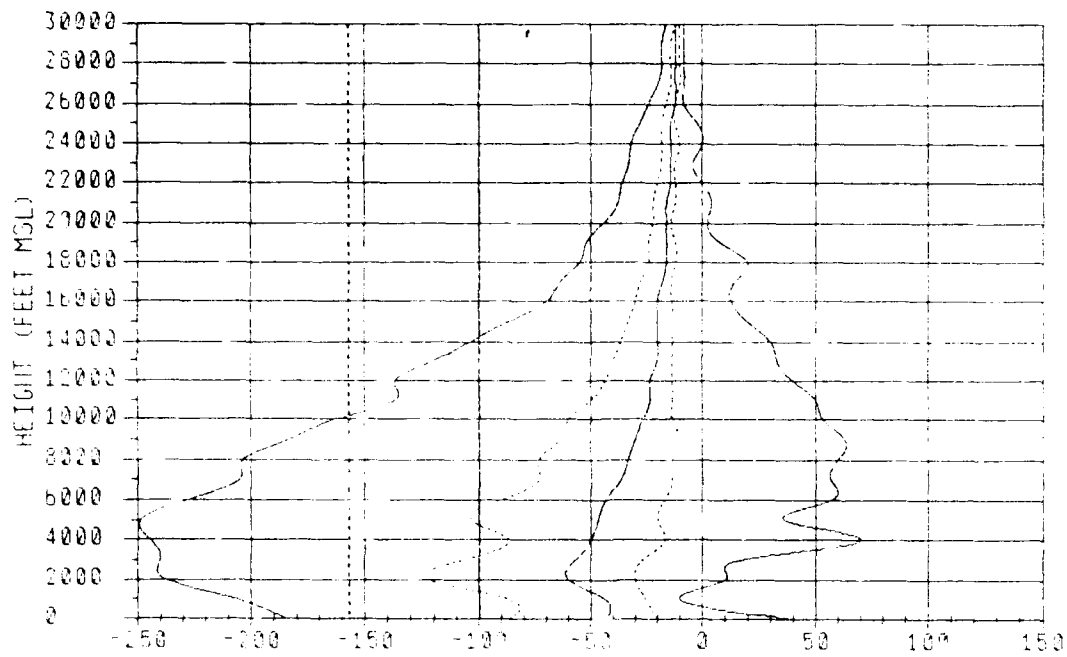
N (N-Units) 0000Z



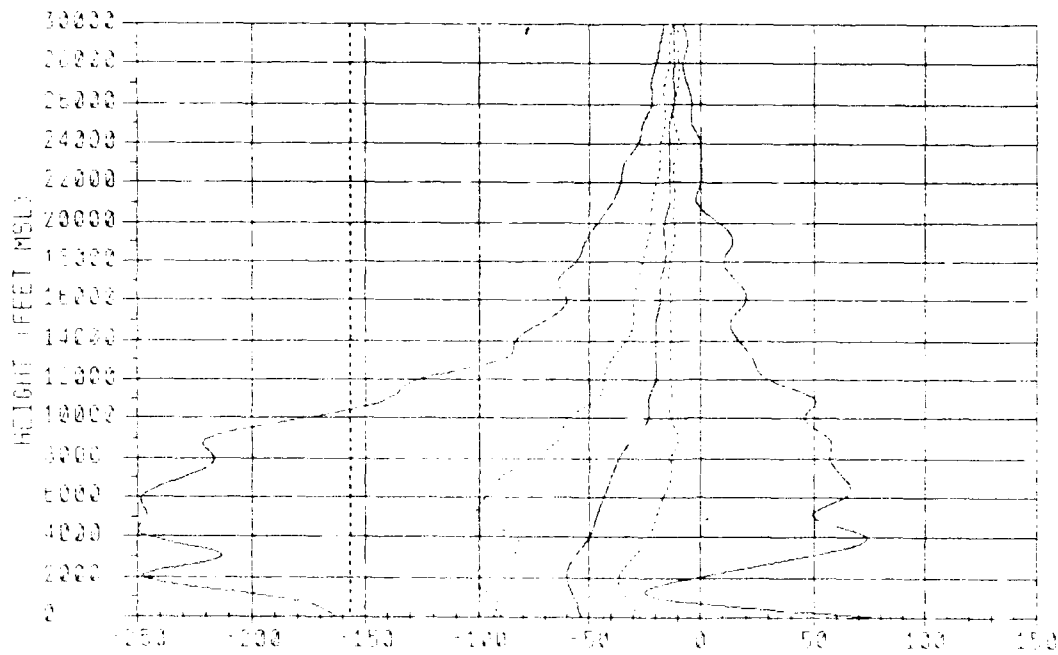
N (N-Units) 1200Z

FIGURE B-3-2-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-3-2-B

OWEN ROBERTS

WET-DRY TRANSITION

NOT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE		
		10%	50%	90%	95%		10%	50%	90%	95%		SNLR	SUB	
500-500	328.32	382.38	372.88	388.08	388.30	-242.03	-108.28	-80.83	0.00	107.78	7.4	18.7	17.8	
500-1000	314.38	343.80	384.00	377.00	388.88	-100.00	-88.88	-47.81	-28.18	-8.33	0.2	1.4	0.7	
1000-1800	258.83	337.72	388.88	388.88	378.87	-98.02	-88.88	-48.83	-28.18	-10.31	0.3	1.0	0.7	
1800-2000	253.88	330.98	348.28	380.80	388.38	-204.33	-78.18	-47.81	-28.18	-10.42	3.8	7.1	0.8	
2000-2800	250.48	323.18	340.38	381.18	388.18	-238.88	-108.88	-84.18	-31.28	-18.88	7.2	13.8	0.8	
2800-3000	271.70	312.18	328.80	340.28	347.40	-280.00	-108.28	-88.33	-31.28	0.00	8.1	14.7	1.7	
3000-3800	241.40	301.18	318.88	328.18	338.87	-327.08	-100.00	-88.28	-31.28	10.42	6.7	10.8	1.8	
3800-4000	237.70	288.37	310.08	320.88	328.80	-231.23	-87.80	-82.08	-27.08	18.88	6.0	7.8	2.8	
4000-4800	234.20	278.00	301.88	312.80	320.88	-208.33	-77.08	-80.00	-23.30	33.33	3.8	7.8	4.1	
4800-5000	238.72	288.88	294.18	305.80	312.88	-281.82	-83.33	-47.81	-18.88	68.33	6.2	11.3	8.4	
5000-8000	227.38	248.81	281.80	295.18	304.11	-238.78	-83.38	-48.83	-18.82	81.43	8.0	17.4	10.8	
8000-7000	218.82	233.30	288.80	281.28	288.18	-232.81	-83.33	-41.88	-14.88	83.38	8.8	14.8	12.8	
7000-8000	212.12	220.80	248.80	288.80	278.08	-243.08	-83.33	-38.88	-13.28	83.33	8.3	14.8	14.0	
8000-9000	204.78	210.80	238.10	288.88	283.88	-223.30	-73.30	-38.88	-10.10	80.02	10.8	14.8	13.8	
9000-10000	198.22	202.10	220.80	243.70	281.80	-200.00	-83.41	-33.33	-10.03	78.88	6.2	11.3	13.7	
10000-11000	192.10	194.70	208.80	231.70	240.88	-210.02	-83.41	-28.88	-13.28	78.07	10.4	13.2	17.0	
11000-12000	188.30	187.40	187.70	220.30	228.48	-178.88	-83.28	-23.30	-13.28	88.82	7.4	10.8	11.8	
12000-13000	178.02	180.80	188.40	210.02	218.00	-128.88	-43.38	-23.30	-13.28	48.81	3.8	8.1	8.8	
13000-14000	172.80	174.80	180.80	201.10	208.10	-128.88	-38.71	-20.08	-13.28	48.81	3.7	8.1	8.8	
14000-15000	168.80	168.80	173.40	191.70	198.80	-113.41	-38.71	-20.08	-13.41	43.33	2.4	8.0	8.3	
15000-16000	161.82	183.10	187.20	183.00	191.80	-88.87	-30.07	-18.82	-13.28	28.88	0.3	3.8	7.8	
16000-17000	158.28	157.80	181.70	178.10	184.10	-78.88	-28.04	-17.88	-13.88	28.77	1.0	2.8	8.0	
17000-18000	181.10	152.80	158.00	188.80	178.80	-88.88	-28.01	-17.88	-13.88	17.88	0.8	1.3	8.8	
18000-19000	148.10	148.80	180.80	181.30	188.87	-84.08	-24.08	-18.01	-12.03	18.04	1.3	1.8	7.1	
19000-20000	138.80	141.80	144.80	154.30	160.80	-48.82	-22.22	-18.01	-13.88	10.00	0.3	0.8	8.8	
20000-21000	134.80	137.30	140.20	148.30	154.48	-42.02	-21.85	-18.01	-13.88	11.82	0.2	0.8	4.3	
21000-22000	130.01	132.80	138.80	142.30	148.10	-43.88	-20.00	-14.08	-12.03	3.88	0.0	0.0	3.3	
22000-23000	128.21	128.87	131.30	138.70	142.10	-38.88	-20.00	-13.88	-11.88	1.88	0.0	0.0	3.7	
23000-24000	120.10	123.80	128.80	131.30	138.18	-32.03	-17.88	-13.88	-11.88	0.00	0.0	0.2	2.7	
24000-25000	118.80	118.80	122.30	128.30	130.00	-30.00	-17.88	-13.88	-11.88	-2.08	0.0	0.0	2.2	
25000-26000	111.30	118.80	118.30	121.80	124.80	-28.04	-18.01	-13.88	-11.88	-8.02	0.0	0.0	1.3	
26000-27000	107.28	112.30	114.40	117.30	120.00	-22.03	-18.84	-12.03	-11.88	-7.87	0.0	0.0	1.2	
27000-28000	102.78	108.10	110.40	113.00	118.20	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.7	
28000-29000	98.88	104.80	108.80	108.80	110.80	-18.28	-13.88	-12.03	-10.00	-8.02	0.0	0.0	0.7	
29000-30000	98.30	101.20	103.10	104.80	108.40	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.8	
30000-31000	81.88	98.00	98.70	101.40	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0	
31000-32000	88.40	94.80	98.40	98.00	98.10	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.3	
32000-33000	84.88	91.10	92.80	94.80	98.50	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2	
33000-34000	81.88	87.80	88.40	88.80	91.81	-25.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2	
34000-35000	78.48	88.80	88.80	87.80	88.41	-21.88	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.2	

0000Z

HGT FT MSL	1%	N PERCENTILES			90%	95%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE		
		10%	50%	90%			10%	50%	90%	95%		SNLR	SUB	
500-500	328.50	382.08	373.88	388.88	388.28	-214.50	-112.80	-88.28	-10.42	208.82	7.0	24.2	18.0	
500-1000	258.73	341.88	384.38	377.08	388.28	-108.33	-78.83	-82.08	-28.18	-18.04	0.8	1.7	0.8	
1000-1800	288.18	338.88	388.28	388.18	378.82	-133.84	-78.83	-82.08	-28.18	-18.88	1.0	2.8	0.2	
1800-2000	283.10	328.88	348.00	388.88	387.10	-183.21	-81.28	-82.08	-30.42	-18.78	3.1	8.2	0.3	
2000-2800	248.83	320.88	338.00	380.00	387.82	-230.80	-100.00	-88.28	-33.33	-18.78	4.2	10.8	0.2	
2800-3000	248.18	310.88	328.88	338.88	347.75	-178.28	-88.88	-88.28	-33.33	-10.42	3.8	8.2	0.7	
3000-3800	241.10	302.00	318.88	328.88	337.80	-178.88	-83.33	-84.18	-33.33	-10.42	2.8	8.8	1.0	
3800-4000	237.80	283.80	310.28	321.38	328.11	-191.75	-77.08	-80.00	-27.08	18.88	3.1	4.8	2.8	
4000-4800	233.84	283.88	302.28	313.88	320.88	-171.42	-72.81	-80.00	-22.81	23.80	3.3	4.7	4.0	
4800-5000	230.70	275.88	288.00	308.28	314.01	-278.74	-82.81	-47.81	-20.83	81.41	7.2	8.8	7.3	
5000-8000	225.30	255.20	282.38	295.88	304.03	-253.80	-88.88	-47.81	-20.83	88.28	12.8	17.8	8.3	
8000-7000	218.83	234.80	288.78	288.88	288.78	-258.88	-88.88	-43.78	-14.88	88.48	11.4	14.1	12.3	
7000-8000	212.31	222.80	288.80	288.80	288.28	-228.18	-78.78	-38.78	-13.28	88.18	10.8	14.8	12.7	
8000-9000	204.80	211.00	234.00	288.28	283.88	-241.80	-78.88	-38.88	-13.28	71.81	13.4	18.8	14.4	
9000-10000	198.70	202.00	218.30	243.80	280.80	-230.08	-88.88	-33.33	-10.03	88.38	9.3	14.4	14.7	
10000-11000	181.70	184.80	207.70	232.10	240.80	-183.38	-83.28	-28.88	-13.28	70.38	8.8	11.8	13.8	
11000-12000	184.80	187.40	187.40	220.80	228.08	-183.28	-83.28	-23.30	-13.28	83.28	8.3	10.3	13.1	
12000-13000	178.80	188.80	188.80	210.10	218.28	-153.28	-48.81	-23.30	-13.28	82.88	4.8	8.2	12.8	
13000-14000	172.08	174.40	180.80	188.80	208.70	-140.03	-38.87	-20.08	-13.28	88.70	5.2	7.4	11.4	
14000-15000	168.40	168.40	173.30	181.88	188.20	-100.00	-33.33	-20.08	-13.28	88.28	2.8	3.8	11.4	
15000-16000	161.20	162.80	188.80	183.28	181.40	-108.84	-33.33	-18.82	-13.41	38.88	1.7	4.7	8.3	
16000-17000	158.00	157.70	181.80	178.28	183.87	-80.00	-28.04	-17.88	-13.88	28.48	0.8	1.7	7.8	
17000-18000	181.70	152.80	158.00	188.80	178.80	-88.88	-28.01	-17.88	-13.88	17.88	0.8	0.8	8.2	
18000-19000	148.20	148.80	180.80	180.30	188.11	-72.03	-23.88	-18.01	-11.88	12.03	1.1	2.4	7.4	
19000-20000	138.70	141.80	144.80	153.40	160.24	-48.04	-22.03	-18.01	-13.88	11.88	0.0	0.3	8.1	
20000-21000	134.70	137.20	140.18	147.30	183.84	-80.00	-21.88	-18.01	-13.88	3.88	0.0	0.2	4.3	
21000-22000	128.70	132.70	138.80	141.80	147.00	-37.88	-20.00	-14.08	-12.03	8.78	0.0	0.2	4.1	
22000-23000	124.80	128.40	131.20	138.40	141.24	-33.88	-18.04	-13.88	-11.88	0.00	0.0	0.0	3.1	
23000-24000	118.87	123.70	128.80	131.20	138.33	-32.03	-17.88	-13.88	-11.88	-2.03	0.0	0.2	3.1	
24000-25000	118.20	118.80	122.40	128.10	128.80	-28.04	-18.01	-13.88	-11.88	-2.00	0.0	0.0	2.8	
25000-26000	111.00	118.70	118.30	121.80	124.70	-28.83	-18.01	-13.88	-11.88	-8.02	0.0	0.0	1.8	
26000-27000	107.00	111.80	114.48	117.30	118.80	-20.00	-18.01	-12.03	-11.88	-8.84	0.0	0.0	1.8	
27000-28000	102.80	107.80	110.40	113.00	118.28	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.7	
28000-29000	98.70	104.80	108.80	108.80	110.80	-20.00	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.3	
29000-30000	98.00	101.00	103.00	104.80	108.30	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.8	
30000-31000	81.80	97.70	98.70	101.40	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0	
31000-32000	88.20	94.50	96.40	98.30	99.00	-17.13	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2	
32000-33000	84.80	90.90	92.80	94.80	95.50	-22.03	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0	
33000-34000	81.40	87.70	89.40	90.90	91.80	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0	
34000-35000	78.22	85.50	88.80	87.80	88.80	-16.01	-10.00	-10.00	-8.05	-7.87	0.0	0.0	0.0	

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	7.4	98	285	390	15.7	98	340	482	99.3	1872	5010	34788	17.8	98	384	384
500-1000	0.2	394	394	394	0.0				1.2	98	12980	34680	0.3	98	98	1181
1000-1500	0.3	591	591	591	0.9	591	888	1181	0.9	3740	8153	12992	0.3	98	541	984
1500-2000	3.5	197	492	787	6.2	98	888	1142	1.0	1083	3838	33400	0.0			
2000-2500	4.7	197	394	630	7.8	98	443	1014	5.8	1338	3543	11814	0.2	394	394	394
2500-3000	4.5	197	394	620	7.8	98	492	945	10.9	98	3199	12108	1.6	98	295	1478
3000-3500	4.3	256	492	787	4.7	98	492	607	9.1	197	2018	31874	1.2	98	344	1083
3500-4000	2.8	197	295	522	4.3	98	295	888	7.1	98	1969	9922	1.9	512	984	1358
4000-4500	2.1	197	394	591	4.9	98	295	888	5.7	98	2087	30998	2.2	177	591	1280
4500-5000	5.4	138	295	591	6.6	98	295	988	11.3	197	2804	30280	5.2	129	394	1152
5000-6000	7.1	98	295	591	12.4	98	295	787	24.4	98	5069	29928	7.9	217	492	1518
6000-7000	8.8	197	295	492	11.9	98	295	591	17.7	98	2854	28479	8.7	197	591	1083
7000-8000	7.4	197	295	492	11.1	98	295	591	19.1	98	1772	27583	9.3	295	591	1083
8000-9000	9.3	98	295	394	12.7	98	197	492	18.6	98	1873	28608	9.6	197	492	1083
9000-10000	7.1	98	497	394	9.3	98	197	492	15.9	98	1772	28723	10.3	177	492	984
10000-11000	9.2	98	197	295	12.2	98	197	394	22.5	98	2805	24837	11.1	98	295	925
11000-12000	8.8	98	197	295	9.5	98	197	295	15.8	98	2904	23852	8.0	128	492	1053
12000-13000	3.2	98	197	295	5.0	98	148	295	12.5	98	3199	22777	6.6	98	394	1102
13000-14000	3.5	98	197	295	5.9	98	98	295	6.2	98	1870	21588	6.8	157	492	1024
14000-15000	2.3	98	98	248	4.3	98	197	295	10.3	98	2382	20782	8.9	98	394	1181
15000-16000	0.8	98	197	197	3.4	98	197	197	8.7	98	4527	19787	5.8	98	394	984
16000-17000	1.0	98	164	164	2.4	98	164	213	8.4	321	7349	16701	6.3	164	492	988
17000-18000	0.5	164	164	164	1.3	164	164	328	6.1	328	5413	17717	4.2	164	492	889
18000-19000	1.3	164	164	164	1.8	164	164	164	8.8	771	15912	16733	6.1	164	492	837
19000-20000	0.3	164	164	164	0.5	164	164	164	4.3	820	14928	15633	4.0	164	492	738

0000Z

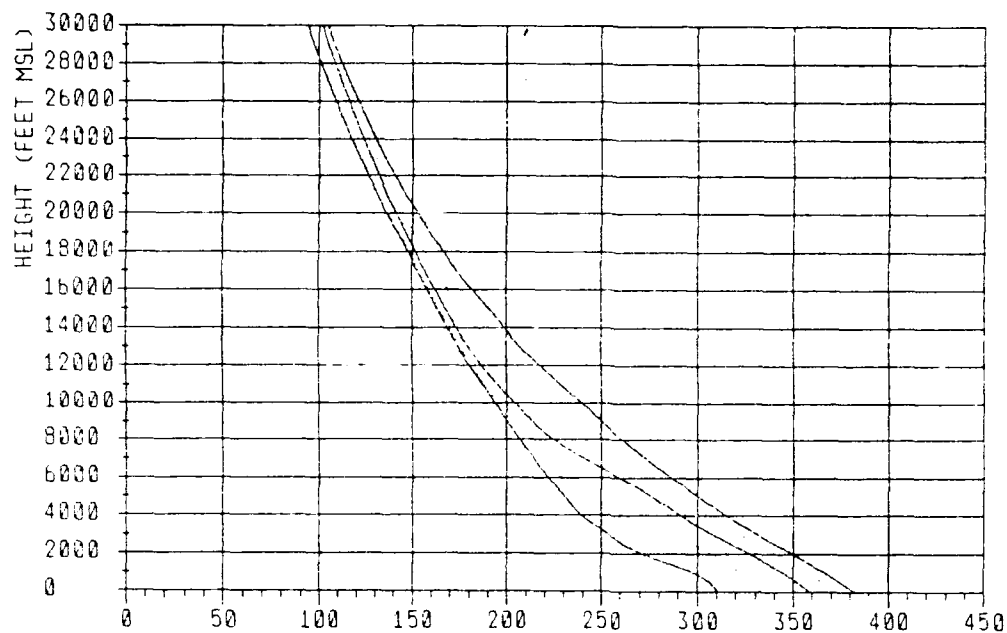
BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	7.0	98	285	473	24.2	98	285	384	98.8	1855	5895	15997	19.0	98	187	384
500-1000	0.2	394	394	394	0.7	98	148	1083	1.4	1181	4872	14384	0.5	295	394	689
1000-1500	1.0	98	443	591	2.1	98	787	1437	0.5	1870	3248	3842	0.0			
1500-2000	2.8	197	295	689	6.3	98	689	1201	1.9	689	4085	8081	0.2	394	394	394
2000-2500	2.8	197	394	522	5.1	98	394	988	4.5	1782	3937	11279	0.2	295	295	295
2500-3000	1.6	295	394	787	4.2	98	248	984	9.2	630	3543	8720	0.7	197	689	1575
3000-3500	1.9	197	295	827	2.8	98	295	1043	4.0	258	3051	8484	0.7	295	738	1378
3500-4000	1.7	207	394	879	2.3	98	295	787	4.2	98	3396	31235	1.7	238	394	1240
4000-4500	2.1	128	344	689	3.5	98	394	879	4.3	98	1478	30869	2.1	226	541	688
4500-5000	6.0	98	295	512	8.0	98	197	689	11.9	138	4823	30250	4.5	98	295	827
5000-6000	9.7	98	295	492	14.6	98	394	787	23.4	138	6893	30152	7.0	197	591	1457
6000-7000	5.0	98	295	492	10.8	98	197	689	19.1	98	2808	28478	6.7	197	394	1083
7000-8000	8.9	167	295	492	13.0	98	167	492	18.5	187	2382	27691	6.4	256	492	1083
8000-9000	10.9	98	295	394	13.8	98	197	492	20.4	98	3842	28707	10.9	98	492	1132
9000-10000	7.9	98	248	483	9.0	98	148	344	19.0	98	2264	25644	9.5	167	394	984
10000-11000	8.1	98	197	295	10.8	98	197	472	19.1	98	3150	24837	9.2	98	492	1181
11000-12000	8.0	98	197	295	9.9	98	98	394	14.8	138	2559	23459	9.8	197	492	1328
12000-13000	4.1	98	197	308	8.4	98	197	315	15.2	98	2758	22642	8.4	98	394	1181
13000-14000	4.8	98	98	278	7.0	98	148	295	14.1	98	1378	21608	7.8	98	394	1004
14000-15000	2.8	98	98	228	3.6	98	98	236	11.2	98	1542	20535	6.2	98	394	925
15000-16000	1.8	98	98	285	4.7	98	197	295	10.1	98	6070	19820	5.9	98	295	820
16000-17000	0.8	98	98	131	1.6	164	164	295	6.6	478	3183	18818	5.9	164	492	958
17000-18000	0.5	164	164	164	0.5	164	164	328	5.7	984	7218	17717	4.3	164	492	853
18000-19000	1.1	164	164	164	2.4	164	164	164	9.0	988	15912	18888	6.8	164	328	820
19000-20000	0.0				0.3	164	164	164	5.1	1280	18258	18748	3.8	164	410	820

1200Z

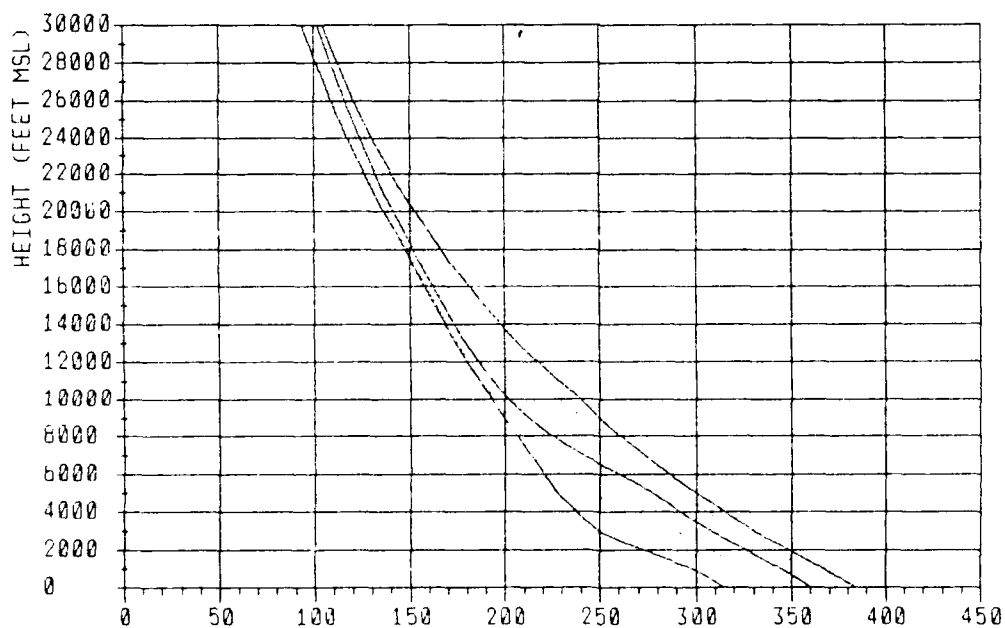
FIGURE B-3-2-D

B-44

N PERCENTILES



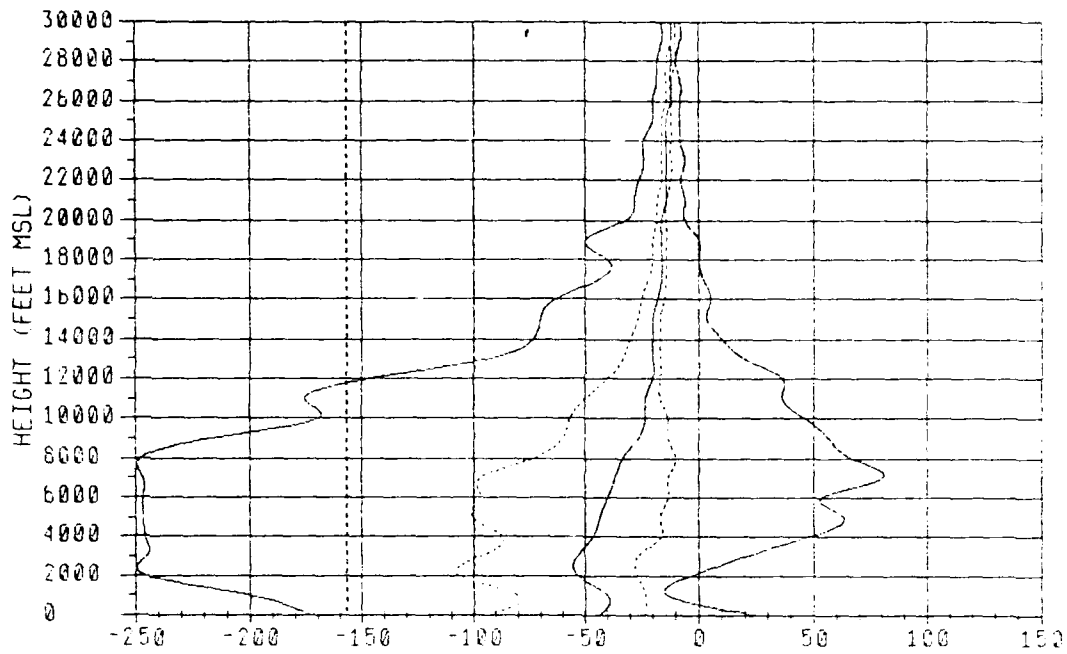
N (N-Units) 0000Z



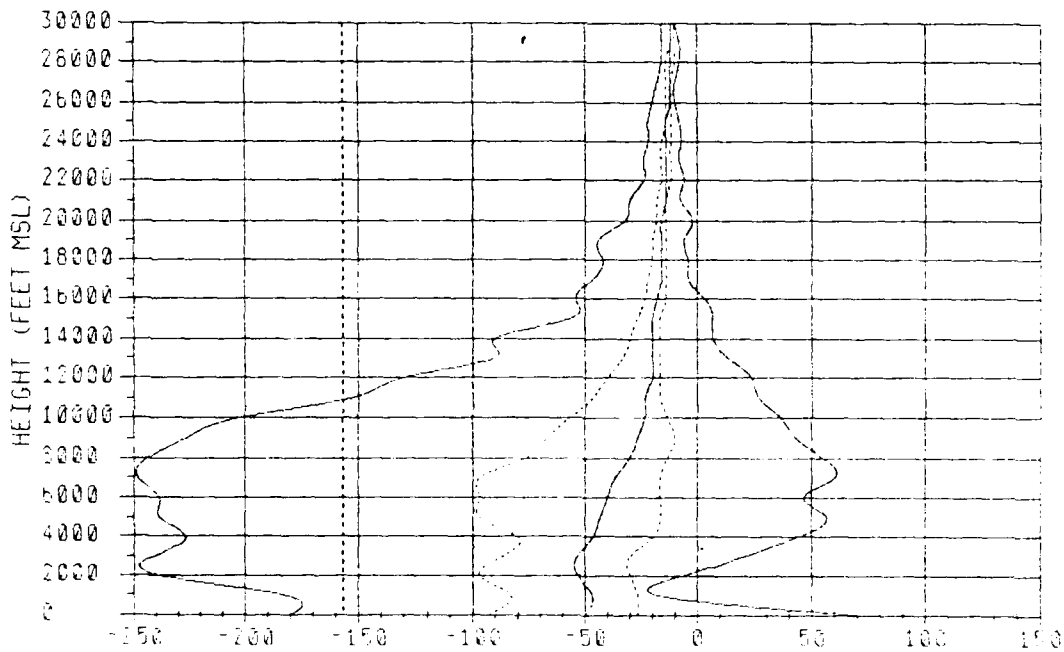
N (N-Units) 1200Z

FIGURE B-3-3-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-3-3-B

OWEN ROBERTS

DRY SEASON

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	95%		10%	50%	90%	95%		SRLR	SUB
5FC-500	319.52	338.89	364.89	377.00	386.48	-201.85	-118.78	-56.25	-20.83	56.25	7.4	23.8	7.2
500-1000	275.31	331.08	356.25	368.25	377.29	-100.00	-60.41	-39.58	-22.91	-10.42	0.0	1.8	0.7
1000-1500	301.07	328.18	348.89	361.37	369.11	-182.09	-88.88	-39.58	-22.91	-10.42	1.2	3.8	0.7
1500-2000	290.58	320.50	342.25	353.88	360.62	-248.83	-89.58	-43.75	-28.00	-12.80	8.4	10.3	0.4
2000-2500	275.14	312.58	333.58	344.88	351.21	-285.35	-108.25	-52.08	-27.08	-10.42	7.8	13.0	0.9
2500-3000	285.03	302.25	322.19	334.38	341.97	-285.75	-108.25	-58.25	-27.08	0.00	8.3	11.1	1.1
3000-3500	255.96	290.80	311.88	324.00	331.93	-258.31	-100.00	-54.18	-27.08	17.28	7.5	11.0	2.6
3500-4000	248.54	279.51	302.75	315.58	323.79	-317.22	-93.75	-50.00	-22.91	33.33	8.6	8.3	4.4
4000-4500	242.40	268.16	284.58	307.75	318.06	-288.41	-87.50	-47.91	-18.88	39.58	8.9	9.8	6.6
4500-5000	237.50	258.54	287.58	300.88	308.74	-295.22	-89.97	-45.83	-12.50	81.75	7.3	11.3	10.8
5000-6000	229.30	242.08	274.75	290.58	299.58	-285.70	-100.00	-43.75	-18.88	64.58	14.8	21.8	12.8
6000-7000	221.20	227.80	287.88	278.58	285.08	-270.66	-98.74	-39.58	-13.28	58.25	13.0	18.1	12.8
7000-8000	213.70	218.00	239.70	263.88	272.69	-298.56	-93.38	-38.71	-13.28	83.33	14.0	18.4	13.8
8000-9000	205.80	208.90	223.30	250.90	260.50	-253.28	-70.08	-30.07	-10.03	78.08	12.3	17.9	14.8
9000-10000	198.80	200.90	211.20	238.30	248.30	-210.02	-80.02	-28.89	-10.03	88.84	8.9	9.8	10.8
10000-11000	192.10	194.00	201.80	228.80	238.90	-183.41	-53.38	-23.30	-13.41	40.10	8.4	8.8	10.8
11000-12000	185.20	188.90	192.60	213.40	225.50	-174.37	-48.74	-23.30	-16.88	39.97	6.3	7.8	9.2
12000-13000	179.00	180.50	184.90	200.80	214.80	-130.07	-38.71	-20.05	-16.88	38.89	3.3	5.7	7.8
13000-14000	172.80	174.10	178.30	191.50	204.83	-90.01	-33.33	-20.05	-16.88	13.41	1.8	3.0	8.1
14000-15000	168.90	168.30	171.80	182.10	198.20	-70.08	-28.95	-20.05	-16.88	9.90	1.0	1.8	3.8
15000-16000	161.50	162.80	168.00	173.70	187.80	-78.58	-28.89	-19.92	-18.88	6.84	0.8	2.4	3.3
16000-17000	158.20	157.80	160.70	178.58	179.11	-58.32	-23.98	-17.98	-15.04	3.88	0.2	0.8	3.4
17000-18000	151.20	152.30	155.10	160.20	171.00	-41.95	-21.95	-18.01	-13.98	3.98	0.2	0.2	2.8
18000-19000	145.30	148.70	149.70	154.40	164.18	-48.04	-20.00	-18.01	-13.98	0.00	0.7	1.7	2.8
19000-20000	139.70	141.70	144.30	148.40	158.50	-33.98	-18.04	-18.01	-13.98	-4.08	0.0	0.1	1.8
20000-21000	134.80	137.10	139.80	143.20	150.52	-31.95	-18.04	-15.94	-13.98	-4.08	0.1	0.2	1.4
21000-22000	129.88	132.70	135.10	138.30	144.80	-27.98	-17.98	-13.98	-13.98	-7.97	0.0	0.0	1.4
22000-23000	124.90	128.40	130.80	133.80	139.80	-28.01	-18.01	-13.98	-12.03	-8.02	0.0	0.0	1.4
23000-24000	119.70	123.70	128.30	129.20	133.10	-23.93	-18.01	-13.98	-11.95	-8.02	0.0	0.1	1.0
24000-25000	118.20	119.80	122.00	124.80	128.00	-21.95	-15.94	-13.98	-11.95	-8.08	0.0	0.1	0.3
25000-26000	111.00	115.70	118.00	120.30	123.22	-20.00	-14.08	-12.03	-11.95	-7.97	0.0	0.0	0.3
26000-27000	107.00	112.10	114.20	118.30	118.70	-18.04	-14.08	-12.03	-11.95	-10.00	0.0	0.0	0.3
27000-28000	102.50	107.80	110.20	112.30	114.20	-18.04	-13.98	-12.03	-10.00	-8.08	0.0	0.0	0.4
28000-29000	98.80	104.30	106.30	108.10	109.80	-18.01	-13.98	-11.95	-10.00	-10.00	0.0	0.0	0.3
29000-30000	95.10	100.90	102.90	104.80	108.00	-18.01	-12.03	-11.95	-10.00	-8.08	0.0	0.0	0.0
30000-31000	91.80	97.70	99.80	101.20	102.40	-14.08	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
31000-32000	88.30	94.40	96.30	98.80	98.90	-18.77	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	84.70	90.80	92.70	94.50	95.40	-20.00	-12.03	-10.00	-10.00	-8.08	0.0	0.0	0.0
33000-34000	81.50	87.50	89.30	90.80	91.80	-18.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	79.30	85.30	86.70	87.80	88.50	-12.03	-10.00	-10.00	-8.08	-7.97	0.0	0.0	0.0

0000Z

HGT	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
FT MSL	1%	10%	50%	90%	95%	1%	10%	50%	90%	95%	DUCT	SRLR	SUB
5FC-800	324.08	342.02	367.00	378.58	387.00	-235.41	-113.15	-59.33	-10.42	210.84	9.1	28.2	18.8
500-1000	312.12	332.89	357.38	370.25	377.98	-122.91	-72.91	-47.91	-27.08	-18.88	0.8	2.5	0.3
1000-1500	305.18	327.58	348.89	361.60	369.80	-161.85	-77.08	-47.91	-27.08	-18.88	2.4	5.1	0.3
1500-2000	295.85	321.50	341.38	352.88	359.88	-222.27	-83.33	-50.00	-28.18	-18.75	4.8	8.4	0.4
2000-2500	281.72	314.00	332.08	343.50	350.50	-285.58	-100.00	-54.18	-28.18	-12.80	8.8	11.8	1.0
2500-3000	269.99	304.89	321.38	333.38	340.75	-228.44	-83.75	-54.18	-28.18	-6.25	5.8	10.0	1.7
3000-3500	258.06	294.69	311.25	323.37	331.15	-280.37	-87.50	-54.18	-28.18	7.71	4.8	7.6	2.1
3500-4000	247.33	285.25	302.89	315.25	323.15	-287.54	-79.18	-50.00	-27.08	22.91	6.7	9.1	3.8
4000-4500	242.03	275.88	295.18	307.38	315.88	-234.25	-83.33	-47.91	-22.91	31.25	8.0	7.7	5.8
4500-5000	237.10	264.50	287.75	300.38	308.88	-237.87	-83.33	-43.75	-18.88	81.51	8.7	10.4	9.1
5000-6000	227.81	245.40	275.88	290.08	299.17	-283.31	-97.91	-43.75	-18.88	83.98	13.1	18.1	10.4
6000-7000	220.39	228.10	258.18	278.08	284.50	-280.00	-98.74	-39.58	-18.88	43.75	14.8	18.3	8.8
7000-8000	213.00	217.20	240.80	263.75	272.38	-315.18	-93.38	-38.89	-18.88	68.88	14.8	17.9	11.8
8000-9000	205.30	208.80	223.60	250.90	260.18	-263.28	-73.43	-30.07	-13.28	53.38	12.0	14.7	12.2
9000-10000	198.35	200.80	210.30	237.70	247.80	-228.89	-63.41	-28.89	-10.03	83.28	8.8	10.3	11.2
10000-11000	191.70	193.80	199.80	226.20	237.80	-193.38	-58.84	-23.30	-13.41	33.33	7.8	8.0	10.8
11000-12000	184.80	188.60	191.80	212.80	225.80	-153.25	-43.38	-23.30	-13.41	33.33	4.4	8.8	7.8
12000-13000	178.80	180.30	184.80	200.80	214.00	-128.89	-38.71	-20.05	-16.88	23.30	3.3	9.1	8.4
13000-14000	172.40	173.90	177.90	189.80	204.28	-89.97	-33.33	-20.05	-16.88	13.41	1.9	2.5	3.8
14000-15000	168.70	168.10	171.90	179.80	194.95	-83.33	-28.89	-19.92	-16.88	3.28	1.2	2.5	2.8
15000-16000	161.30	162.80	165.80	172.30	185.80	-83.25	-23.30	-18.88	-16.88	6.84	0.8	0.8	2.8
16000-17000	158.08	157.40	160.60	168.30	178.00	-50.88	-22.03	-17.88	-14.08	1.88	0.7	0.8	2.8
17000-18000	150.90	152.20	155.00	160.10	171.10	-47.98	-20.00	-18.01	-13.98	-3.98	0.2	0.4	1.8
18000-19000	145.20	148.70	149.70	154.20	163.78	-44.08	-20.00	-18.01	-13.98	-3.98	0.2	0.9	2.0
19000-20000	140.00	141.80	144.30	148.30	158.25	-32.03	-20.00	-18.01	-13.98	-3.98	0.0	0.1	1.7
20000-21000	134.88	137.20	139.80	143.10	150.60	-33.98	-18.04	-15.94	-13.98	-5.94	0.1	0.3	1.4
21000-22000	129.88	132.70	135.10	138.20	144.30	-27.98	-17.98	-13.98	-13.98	-7.97	0.0	0.0	1.2
22000-23000	125.10	128.50	130.80	133.80	139.00	-24.00	-18.01	-13.98	-12.03	-7.97	0.1	0.0	0.7
23000-24000	119.80	123.90	126.30	128.90	133.00	-23.67	-18.01	-13.98	-11.95	-7.97	0.0	0.0	1.0
24000-25000	115.30	119.80	122.00	124.40	127.80	-22.03	-18.01	-13.98	-11.95	-8.05	0.0	0.0	0.8
25000-26000	111.10	115.90	118.00	120.20	123.00	-20.00	-14.08	-12.03	-11.95	-8.05	0.0	0.0	0.4
26000-27000	107.00	112.10	114.20	116.20	118.50	-18.04	-13.98	-12.03	-11.95	-10.00	0.0	0.0	0.2
27000-28000	102.60	108.00	110.20	112.30	114.10	-17.98	-13.98	-12.03	-10.00	-8.05	0.0	0.0	0.1
28000-29000	98.70	104.40	106.40	108.10	109.80	-18.01	-12.03	-11.95	-10.00	-8.05	0.0	0.0	0.2
29000-30000	95.10	101.00	102.90	104.60	108.00	-15.94	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.1
30000-31000	91.80	97.80	99.80	101.30	102.40	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
31000-32000	88.30	94.50	96.30	97.90	98.90	-17.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	84.70	90.80	92.70	94.50	95.40	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	81.50	87.80	89.30	90.70	91.80	-17.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	79.25	85.30	86.70	87.80	88.40	-13.98	-10.00	-10.00	-8.08	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	7.4	88	288	384	23.8	88	384	482	99.2	1885	4418	11138	7.2	187	384	482
500-1000	0.0				0.7	88	787	1280	1.3	1043	5810	34880	0.1	394	394	394
1000-1500	1.2	394	482	787	2.8	217	787	1299	0.7	591	4038	33991	0.3	288	288	689
1500-2000	4.4	187	482	689	7.4	88	384	984	1.1	2352	4823	33410	0.1	394	384	384
2000-2500	4.6	118	384	591	7.8	88	384	1004	7.9	1083	3583	7391	0.6	187	689	984
2500-3000	5.7	217	482	689	8.1	88	482	984	9.8	600	2758	5895	0.8	492	689	2658
3000-3500	4.4	187	384	689	8.6	88	187	787	8.3	234	3002	17879	1.8	88	384	1378
3500-4000	5.7	187	288	571	8.5	88	288	779	7.9	88	1989	31313	3.1	88	689	1288
4000-4500	3.8	187	384	482	8.4	88	288	886	10.8	88	2382	30841	4.0	88	482	1388
4500-5000	8.4	88	288	571	8.7	88	288	859	15.8	88	3842	30280	8.2	88	288	858
5000-6000	11.8	187	288	482	18.9	88	288	689	26.8	88	3246	29857	9.0	128	591	1181
6000-7000	10.3	187	288	482	18.2	88	288	689	19.8	88	2805	28705	8.0	88	482	1122
7000-8000	11.8	187	288	482	14.3	88	187	591	23.9	88	3101	27839	9.3	187	591	1378
8000-9000	8.8	88	288	394	11.8	88	187	482	21.8	88	2707	26805	10.3	187	482	1201
9000-10000	7.8	88	288	394	8.2	88	187	394	12.9	88	8957	25821	6.9	138	482	1083
10000-11000	5.8	88	187	288	7.4	88	187	384	17.8	88	3842	24935	5.8	88	482	1043
11000-12000	5.8	88	187	288	7.8	88	187	384	12.7	88	10387	23784	7.2	88	384	1043
12000-13000	3.0	88	187	288	5.4	88	187	288	10.8	88	8479	22770	4.9	128	482	1083
13000-14000	1.4	88	148	246	2.8	88	88	276	7.0	88	18521	21884	4.0	88	384	1004
14000-15000	1.0	88	88	276	1.8	88	148	288	3.9	88	13028	20752	1.9	88	384	787
15000-16000	0.8	88	88	187	2.1	88	88	288	4.1	288	18177	18787	2.8	88	482	919
16000-17000	0.2	184	184	184	0.9	88	181	328	3.1	978	18373	18931	2.1	400	574	820
17000-18000	0.2	184	184	184	0.2	184	184	184	2.6	1345	17225	17881	1.8	184	482	984
18000-19000	0.7	184	184	184	1.7	184	184	184	4.3	1558	18078	18733	2.1	184	482	804
19000-20000	0.0				0.1	184	184	184	1.7	1624	18258	18748	1.2	184	328	820

0000Z

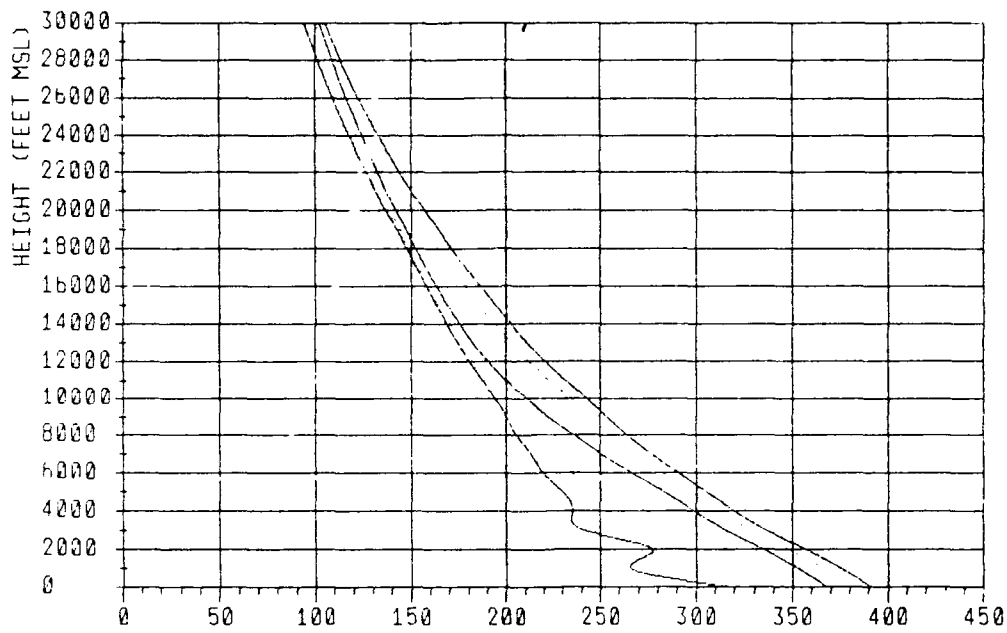
BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	8.1	88	187	384	25.2	88	288	482	99.9	1181	4821	11908	19.8	88	187	384
500-1000	0.4	288	482	689	0.8	88	591	1181	2.1	88	5810	34581	0.0			
1000-1500	2.0	88	384	600	3.5	88	787	1378	1.4	1033	5709	33941	0.2	984	1033	1083
1500-2000	3.1	88	384	689	4.9	88	384	1083	3.1	1083	4823	33302	0.2	288	443	591
2000-2500	3.8	187	288	482	6.8	88	288	984	7.1	935	4331	8759	0.8	187	384	689
2500-3000	3.8	88	288	689	5.0	88	384	889	6.8	88	2858	8858	1.2	88	443	1821
3000-3500	3.1	288	384	889	3.3	88	246	591	5.8	187	2382	31824	1.2	187	591	1555
3500-4000	4.3	187	288	482	4.0	88	88	905	6.8	118	1772	31411	2.3	288	886	1378
4000-4500	3.8	187	384	551	6.2	88	288	689	5.8	88	2264	31038	3.5	88	591	945
4500-5000	5.3	88	288	482	8.1	88	384	787	12.9	88	2858	30348	4.7	187	384	1014
5000-6000	10.3	187	384	482	14.2	88	288	689	23.4	88	3837	30053	7.3	88	482	1181
6000-7000	12.8	88	288	482	18.2	88	187	591	20.9	88	2758	28872	8.1	88	482	1437
7000-8000	12.0	88	288	482	15.2	88	187	482	22.9	88	4872	27888	8.7	88	384	1083
8000-9000	10.1	88	288	384	12.2	88	187	591	21.1	88	4036	28804	8.8	138	482	1240
9000-10000	7.8	88	288	384	8.8	88	187	384	18.1	88	8348	25919	6.7	88	384	1004
10000-11000	8.3	88	187	384	8.0	88	187	384	16.7	384	18243	24935	6.3	138	482	1378
11000-12000	4.0	88	187	384	4.8	88	187	384	10.3	187	8418	23852	5.5	88	591	935
12000-13000	3.0	88	187	288	4.9	88	187	288	8.5	187	22179	22888	4.0	88	482	984
13000-14000	1.8	88	187	318	2.2	88	187	344	6.8	187	7579	21894	2.8	177	591	925
14000-15000	1.1	88	187	288	2.2	88	88	288	4.5	610	20309	20742	2.0	88	591	1280
15000-16000	0.7	88	88	187	0.9	88	88	288	2.8	108	13818	18810	2.0	88	384	878
16000-17000	0.7	131	184	328	0.8	88	184	184	3.1	428	18127	18832	1.7	288	482	869
17000-18000	0.2	184	184	184	0.4	184	184	328	2.3	1378	17225	17832	1.3	184	328	787
18000-19000	0.2	184	184	184	0.9	184	184	184	2.8	886	18812	18404	1.7	184	482	858
19000-20000	0.0				0.1	184	184	184	0.8	184	18092	18748	1.6	184	328	858

1200Z

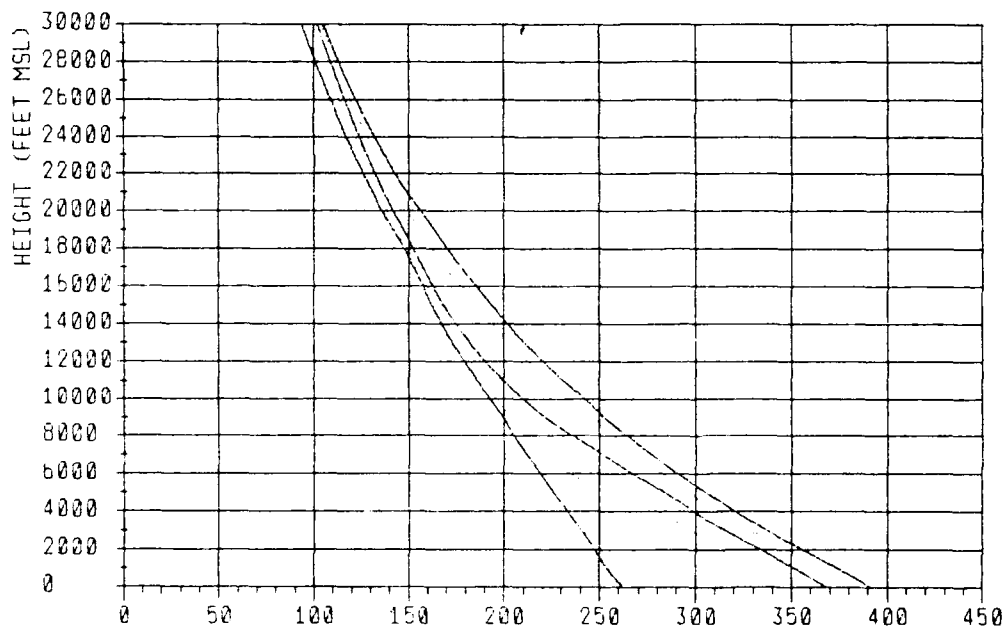
FIGURE B-3-3-D

B-48

N PERCENTILES



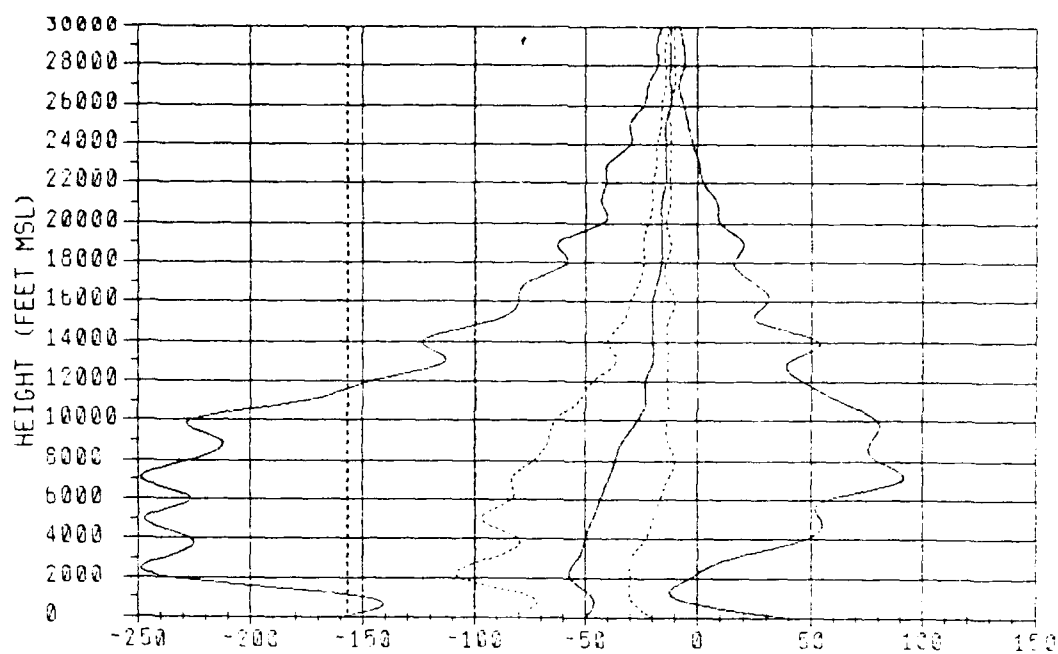
N (N-Units) 0000Z



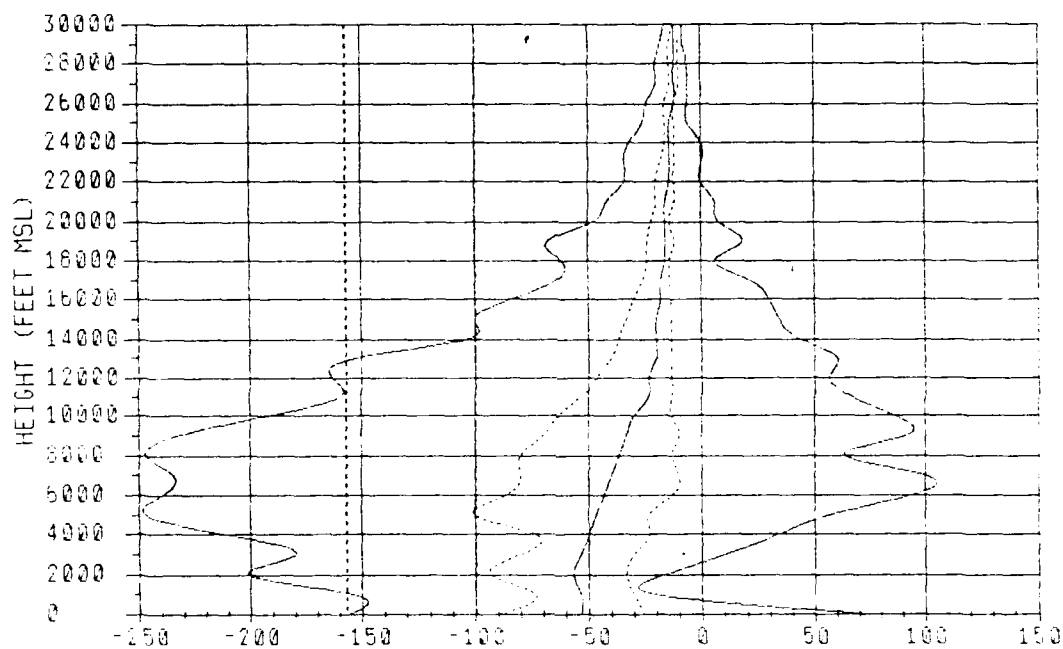
N (N-Units) 1200Z

FIGURE B-3-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-3-4-B

B-50

OWEN ROBERTS

DRY-WET TRANSITION

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	95%		10%	50%	90%	95%		SLR	SUB
500-1000	325.70	354.25	371.75	383.19	390.06	-212.39	-111.11	-50.00	-11.87	76.41	6.6	22.9	14.5
1000-1500	316.69	346.67	363.50	374.67	383.67	-110.04	-92.60	-39.66	-22.91	-8.33	1.3	1.7	0.9
1500-2000	307.91	340.19	356.99	368.09	377.36	-210.25	-72.91	-41.66	-22.91	-8.33	3.7	5.0	1.2
2000-2500	299.23	332.90	348.99	360.19	368.39	-232.96	-104.16	-45.93	-25.00	-8.33	6.3	13.0	1.2
2500-3000	291.87	322.28	339.38	351.19	359.19	-293.69	-120.83	-56.25	-27.08	-2.08	9.0	19.1	1.5
3000-3500	288.83	308.02	327.99	340.88	348.74	-301.79	-122.91	-62.50	-29.40	14.68	10.5	20.3	2.5
3500-4000	281.02	294.07	316.19	330.25	337.97	-284.69	-108.33	-58.33	-29.16	16.44	6.1	13.6	3.0
4000-4500	246.03	283.00	306.56	321.38	329.37	-251.84	-91.66	-53.77	-25.00	39.44	5.5	8.6	6.3
4500-5000	243.20	276.36	298.69	313.19	321.36	-237.12	-83.33	-50.00	-16.75	66.29	6.0	6.3	7.5
5000-6000	238.40	267.19	280.80	304.92	314.04	-276.30	-83.75	-47.91	-16.75	72.16	7.6	12.3	8.7
6000-7000	229.10	248.34	277.58	293.88	303.56	-249.83	-100.00	-47.91	-16.75	37.50	12.9	19.8	10.2
7000-8000	220.80	220.80	261.19	279.00	288.53	-236.71	-87.50	-41.66	-16.66	58.23	11.5	15.7	11.0
8000-9000	213.00	218.60	246.20	266.25	275.72	-210.02	-73.42	-38.71	-13.26	60.02	6.8	13.6	11.6
9000-10000	208.59	209.80	230.90	253.70	263.75	-200.21	-70.05	-33.33	-13.26	60.02	7.9	12.9	14.3
10000-11000	198.80	201.70	217.60	242.00	251.30	-189.97	-63.26	-29.95	-6.64	68.26	7.4	10.7	14.1
11000-12000	192.40	194.60	207.30	231.10	241.35	-178.69	-60.02	-23.44	-13.26	53.38	7.6	11.8	16.2
12000-13000	185.30	187.60	197.50	219.60	230.80	-178.72	-50.00	-23.50	-13.26	53.38	4.2	8.2	14.0
13000-14000	179.10	181.10	188.90	209.20	219.10	-138.59	-43.36	-20.05	-13.26	46.61	3.6	6.4	9.1
14000-15000	172.50	174.50	180.90	200.40	208.70	-113.41	-39.97	-20.05	-13.26	36.71	2.9	5.0	11.0
15000-16000	168.80	168.80	173.40	191.40	199.90	-103.38	-38.99	-20.05	-13.41	26.69	2.3	3.9	9.2
16000-17000	161.34	163.00	167.10	182.30	191.20	-88.59	-33.33	-20.05	-13.41	25.28	0.9	2.8	7.8
17000-18000	156.01	157.60	161.50	174.80	183.80	-68.82	-30.00	-18.04	-13.98	13.98	0.5	0.9	7.3
18000-19000	150.90	152.20	155.80	168.70	176.03	-83.98	-26.01	-17.96	-13.98	17.96	0.2	0.8	6.6
19000-20000	144.70	146.80	150.20	159.50	168.42	-57.98	-24.06	-16.01	-12.03	20.00	1.1	1.6	7.0
20000-21000	139.57	141.80	144.60	153.40	160.80	-44.00	-23.99	-16.01	-13.98	0.00	0.2	0.3	2.2
21000-22000	134.40	137.00	139.90	147.20	154.10	-40.56	-21.95	-16.01	-12.03	6.94	0.0	0.3	3.5
22000-23000	129.40	132.80	135.30	141.70	147.83	-38.04	-20.00	-14.06	-12.03	2.03	0.0	0.0	3.7
23000-24000	124.79	128.20	130.90	136.30	141.70	-34.77	-20.00	-13.98	-11.95	-3.98	0.0	0.6	1.3
24000-25000	119.60	123.60	126.50	130.80	135.90	-30.00	-17.96	-13.98	-11.95	-1.95	0.0	0.0	2.4
25000-26000	115.09	119.40	122.10	126.10	129.80	-30.93	-17.96	-13.98	-11.95	-2.03	0.0	0.2	2.9
26000-27000	110.80	115.50	118.00	121.30	124.70	-25.93	-16.01	-13.98	-11.95	-3.98	0.0	0.0	1.4
27000-28000	106.80	111.60	114.10	117.00	119.80	-22.03	-16.01	-12.03	-11.95	-7.97	0.0	0.2	0.5
28000-29000	102.50	107.70	110.10	112.80	115.10	-18.04	-14.06	-12.03	-10.00	-7.97	0.0	0.0	0.8
29000-30000	98.40	104.10	106.20	108.30	110.20	-17.96	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.9
30000-31000	95.04	100.80	102.80	104.70	106.30	-17.28	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.2
31000-32000	91.60	97.50	99.40	101.20	102.60	-16.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	88.30	94.30	96.20	97.80	99.80	-16.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
33000-34000	84.95	90.80	92.60	94.40	95.30	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	81.53	87.60	89.20	90.70	91.40	-23.96	-11.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
35000-36000	78.38	85.40	86.80	87.80	88.30	-20.00	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	95%		10%	50%	90%	95%		SLR	SUB
500-1000	328.67	357.88	375.19	386.88	394.92	-201.26	-106.25	-58.25	6.94	197.54	7.3	21.2	28.4
1000-1500	296.73	346.69	365.66	377.88	386.77	-137.50	-79.16	-34.16	-31.25	-18.66	0.7	4.0	0.5
1500-2000	285.48	341.38	357.25	368.69	376.67	-191.66	-83.33	-58.25	-33.33	-18.75	3.6	6.0	0.2
2000-2500	291.67	332.20	348.00	359.67	366.25	-221.33	-100.00	-58.33	-33.33	-20.63	6.2	12.9	0.5
2500-3000	289.03	321.25	337.56	348.19	355.76	-269.61	-110.41	-60.41	-37.50	-20.05	6.8	14.4	0.9
3000-3500	261.18	308.57	326.25	339.56	346.00	-248.10	-102.08	-60.41	-33.33	31.44	4.6	14.2	3.3
3500-4000	249.19	299.00	315.75	328.00	335.76	-200.37	-91.66	-56.25	-29.48	48.83	3.7	6.2	3.7
4000-4500	245.68	286.50	307.19	319.56	327.36	-182.41	-83.33	-54.16	-26.69	38.56	4.0	5.5	4.2
4500-5000	241.39	279.06	299.50	311.50	319.57	-261.25	-81.25	-50.00	-22.91	50.00	4.6	7.8	7.5
5000-6000	237.22	270.14	291.50	303.75	312.38	-252.08	-91.66	-50.00	-20.05	70.29	6.1	13.3	9.3
6000-7000	230.52	261.50	278.00	293.19	302.88	-250.00	-96.74	-47.91	-20.83	50.00	12.1	19.5	8.7
7000-8000	221.02	232.80	261.19	278.19	287.21	-252.08	-93.75	-43.75	-14.58	63.23	12.6	17.8	11.4
8000-9000	213.30	219.30	248.00	265.36	274.25	-231.25	-89.97	-39.58	-13.26	66.74	10.1	16.6	11.2
9000-10000	205.40	209.70	230.60	252.70	262.06	-227.60	-73.70	-33.33	-13.26	53.30	10.1	13.7	12.5
10000-11000	198.62	201.41	218.40	238.90	249.36	-183.33	-60.02	-29.95	-6.64	63.36	7.6	10.6	13.9
11000-12000	192.20	194.40	205.80	228.90	239.50	-189.97	-60.02	-23.44	-13.26	46.72	7.2	12.6	15.0
12000-13000	185.20	187.30	198.20	218.10	228.40	-148.61	-46.61	-23.30	-13.26	58.64	4.7	6.4	10.1
13000-14000	179.00	180.80	187.60	207.69	217.48	-123.50	-46.61	-20.05	-13.26	30.08	2.3	6.5	7.5
14000-15000	172.50	174.30	178.60	198.80	208.50	-83.33	-36.71	-20.05	-13.41	23.30	1.9	2.8	7.5
15000-16000	168.72	168.40	172.80	189.40	199.10	-83.33	-33.33	-20.05	-13.26	16.66	1.2	2.8	6.9
16000-17000	161.30	162.80	168.80	181.40	191.20	-69.92	-29.95	-19.92	-13.26	16.66	1.2	1.9	6.9
17000-18000	156.00	157.55	161.40	174.40	183.70	-62.09	-27.96	-17.96	-13.98	18.06	0.0	0.8	7.8
18000-19000	150.90	152.23	155.70	167.50	175.20	-60.00	-26.01	-16.01	-12.03	16.01	0.0	0.6	6.2
19000-20000	145.20	146.70	150.40	160.80	167.95	-59.00	-25.93	-16.01	-12.03	10.00	1.6	1.1	6.7
20000-21000	139.84	141.70	144.70	153.60	160.70	-43.98	-23.96	-16.01	-12.03	7.97	0.2	0.3	4.2
21000-22000	134.74	137.10	140.00	147.90	154.10	-42.03	-22.03	-16.01	-12.03	6.02	0.0	0.6	2.9
22000-23000	129.80	132.60	135.50	141.70	147.59	-39.04	-20.00	-14.06	-12.03	0.00	0.0	0.2	2.4
23000-24000	125.10	128.30	131.10	138.21	141.40	-34.08	-20.00	-13.98	-11.95	0.00	0.0	0.0	2.7
24000-25000	119.90	123.70	126.60	131.00	135.20	-32.03	-17.96	-13.98	-11.95	0.00	0.0	0.0	3.0
25000-26000	115.40	119.60	122.20	125.90	129.80	-27.30	-17.96	-13.98	-11.95	-0.66	0.0	0.0	2.7
26000-27000	111.20	115.70	118.20	121.60	124.60	-22.00	-16.01	-13.98	-11.95	-6.02	0.0	0.0	1.0
27000-28000	107.17	112.00	114.30	117.20	119.90	-22.00	-16.01	-12.03	-11.95	-6.02	0.0	0.0	1.1
28000-29000	102.70	107.80	110.30	112.80	115.10	-20.00	-14.06	-12.03	-10.00	-7.97	0.0	0.0	0.3
29000-30000	98.90	104.20	106.40	108.40	110.27	-18.04	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.2
30000-31000	95.30	100.90	102.80	104.70	106.10	-17.96	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.5
31000-32000	91.60	97.50	99.50	101.30	102.60	-16.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	88.51	94.40	96.20	97.90	99.90	-16.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	84.90	90.80	92.60	94.40	95.30	-22.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	81.80	87.60	89.10	90.60	91.30	-23.92	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
35000-36000	78.80	85.40	86.60	87.80	88.20	-18.88	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
SPC-500	6.8	187	285	384	22.9	89	285	384	99.8	1368	3730	17558	14.5	187	285	384
500-1000	1.3	187	394	888	0.8	98	394	1161	1.2	98	3937	34581	0.2	394	394	394
1000-1500	2.8	98	492	807	4.3	98	787	1280	1.3	98	4827	10433	0.7	295	541	1476
1500-2000	4.2	187	394	630	9.1	98	541	1211	4.0	1280	3445	8189	0.5	197	889	1476
2000-2500	6.0	187	394	689	10.8	98	443	1191	9.8	541	3842	15030	0.8	295	591	1969
2500-3000	8.8	187	492	787	10.5	98	394	888	13.3	98	2853	10974	1.5	197	591	984
3000-3500	4.0	187	394	837	4.8	98	443	864	12.0	98	2853	31825	1.7	98	295	1398
3500-4000	2.5	98	394	827	4.2	98	394	728	8.0	98	2854	22294	5.0	197	591	1083
4000-4500	4.2	187	394	830	5.1	98	295	591	8.1	98	2116	30841	3.2	98	492	787
4500-5000	5.5	187	394	889	9.7	98	295	748	15.8	197	4232	30250	5.7	98	295	1024
5000-6000	9.1	187	394	591	15.3	98	295	689	21.1	98	4828	29857	8.4	128	840	984
6000-7000	8.8	108	285	492	11.8	98	295	689	20.8	197	3101	28774	7.6	98	541	1083
7000-8000	7.0	98	285	492	10.4	98	285	581	18.8	98	3101	27622	8.1	98	492	1024
8000-9000	8.2	138	285	394	10.1	98	187	394	18.8	98	2018	28835	10.5	98	492	985
9000-10000	8.2	98	295	394	9.1	98	187	394	15.2	98	1575	25723	9.9	98	492	985
0000-11000	8.5	98	187	285	9.8	98	187	394	20.3	98	3188	24935	9.8	98	443	1181
1000-12000	3.6	98	187	394	7.8	98	187	394	15.5	98	1869	23783	9.8	98	394	1083
2000-13000	2.8	98	187	285	5.7	98	187	394	12.1	98	8728	22770	9.0	98	394	1083
3000-14000	2.8	98	187	285	4.3	98	98	364	10.9	98	1870	21382	8.9	98	394	1024
4000-15000	2.3	98	98	238	3.9	98	148	328	10.1	98	3789	20742	8.2	197	394	1083
5000-16000	0.9	98	98	187	2.5	98	187	295	8.8	492	8087	19718	5.0	295	591	843
6000-17000	0.8	98	98	184	0.9	131	184	184	8.4	125	5413	18701	5.1	148	492	984
7000-18000	0.2	184	184	184	0.8	184	248	328	4.8	856	17225	17717	4.5	184	328	856
8000-19000	1.1	184	184	184	1.9	184	184	312	9.2	1378	15912	16569	5.4	184	328	820
9000-20000	0.2	184	184	184	0.3	184	248	328	2.7	492	15298	15748	1.7	184	492	951

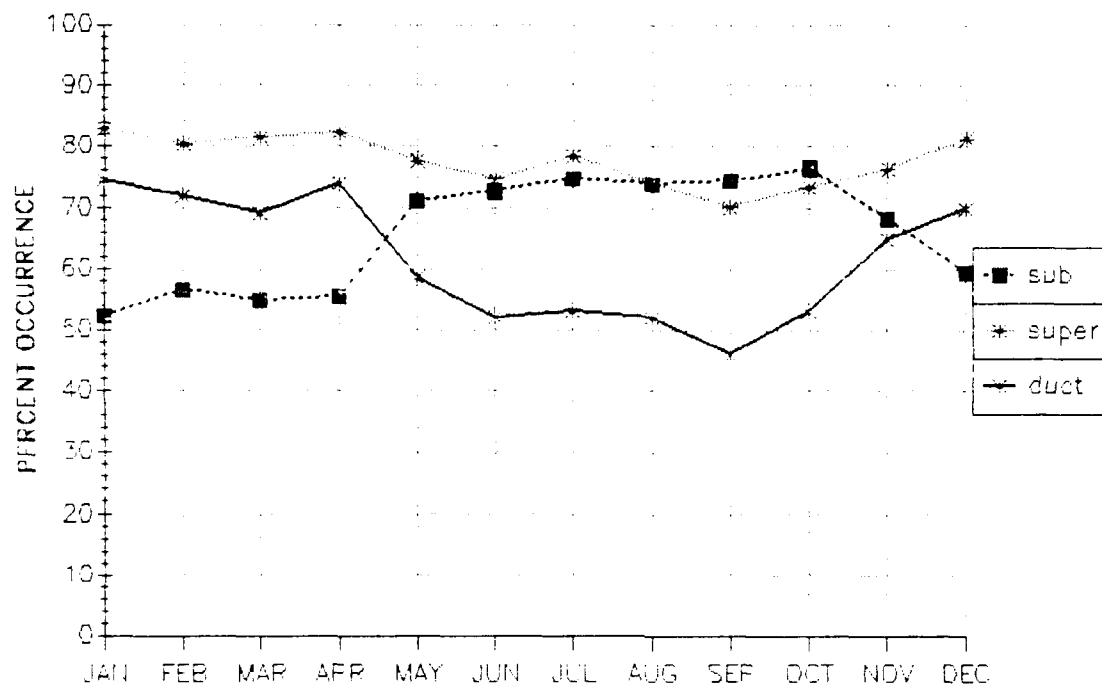
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BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%	NFRQ	10%	50%	90%
SPC-500	7.3	89	187	384	21.2	98	285	589	99.0	1171	4724	14188	28.4	89	197	384
500-1000	0.5	295	492	787	1.5	98	591	1378	1.3	98	4134	9842	0.0			
1000-1500	3.3	295	443	689	3.8	98	787	1280	2.8	2108	5807	33912	0.3	88	295	492
1500-2000	3.7	128	394	591	9.0	98	591	1122	4.2	709	4134	13609	0.3	295	295	295
2000-2500	4.2	197	394	591	6.7	98	591	1073	8.2	394	4183	32809	0.8	295	492	984
2500-3000	3.2	187	394	689	6.2	98	443	1014	11.2	197	2284	7578	2.8	295	591	1142
3000-3500	2.2	138	394	880	3.3	98	187	1161	7.0	423	2558	14828	1.5	295	492	1573
3500-4000	3.2	197	394	889	2.8	98	187	709	4.7	384	3839	31830	2.3	248	840	1329
4000-4500	3.3	98	394	591	5.3	98	492	845	8.0	98	1873	10283	5.2	118	591	888
4500-5000	6.2	98	295	492	8.8	98	187	591	16.5	197	4380	30250	4.4	197	443	1014
5000-6000	8.8	187	394	492	14.5	98	295	689	21.5	98	3297	29758	5.9	98	492	1368
6000-7000	10.7	98	295	492	13.8	98	295	591	19.0	98	3248	28774	8.7	157	492	1220
7000-8000	7.8	98	295	492	13.6	98	295	591	21.2	98	2858	27790	6.9	167	541	1083
8000-9000	8.1	98	295	394	11.8	98	187	492	19.3	98	2165	26805	9.0	98	394	1083
9000-10000	8.1	98	197	394	8.9	98	157	492	17.6	98	1378	25683	10.4	98	394	787
10000-11000	8.5	98	187	394	11.8	98	187	394	22.7	98	5088	24935	8.0	98	394	955
11000-12000	4.8	98	187	295	8.5	98	187	295	11.5	98	4380	23754	6.9	98	591	1102
12000-13000	2.0	98	187	295	5.8	98	187	305	11.2	118	4038	22851	5.0	138	295	984
13000-14000	1.7	98	187	295	2.3	98	98	278	8.7	98	3200	21785	5.8	98	492	805
14000-15000	0.8	98	98	295	2.4	98	98	197	8.9	98	3084	20528	3.9	98	394	848
15000-16000	1.2	98	98	98	1.8	98	98	197	5.9	98	8089	19878	5.5	98	394	883
16000-17000	0.0				0.8	131	184	328	5.8	164	5577	18793	5.6	184	492	984
17000-18000	0.0				0.8	184	184	184	5.8	184	7084	17881	4.0	295	492	853
18000-19000	1.8	184	184	184	1.1	184	184	184	7.8	919	18078	18733	5.3	184	328	820
19000-20000	0.2	184	184	184	0.3	184	184	184	3.9	492	14928	15748	3.4	184	410	935

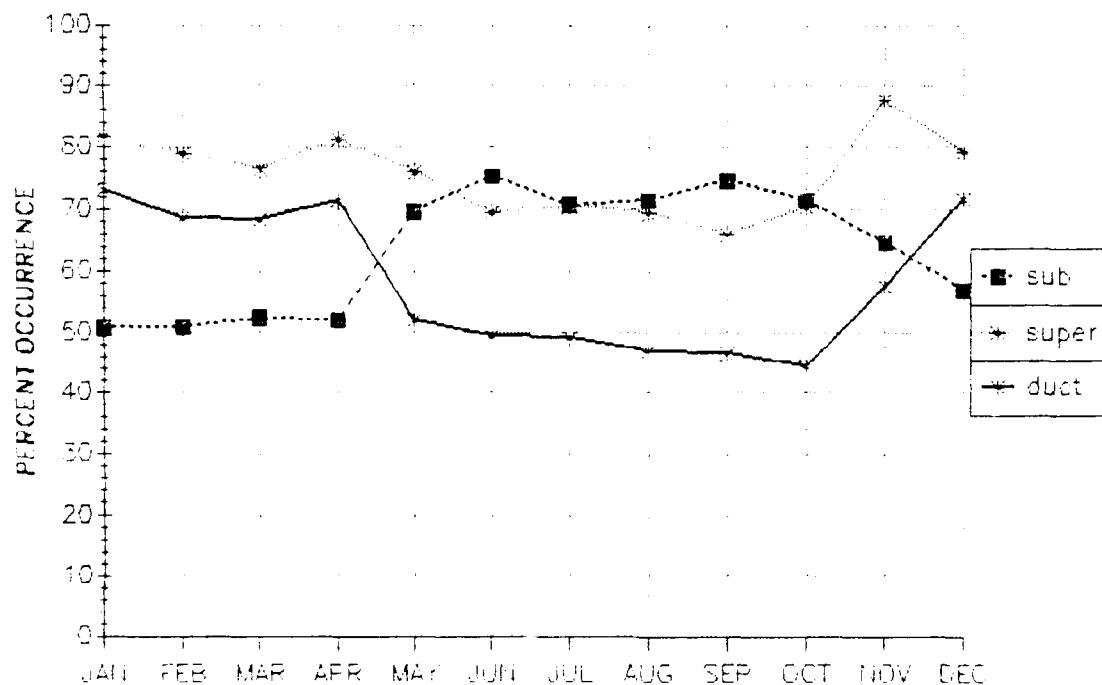
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FIGURE B-3-4-D

AP PERCENT OCCURRENCE FREQUENCY



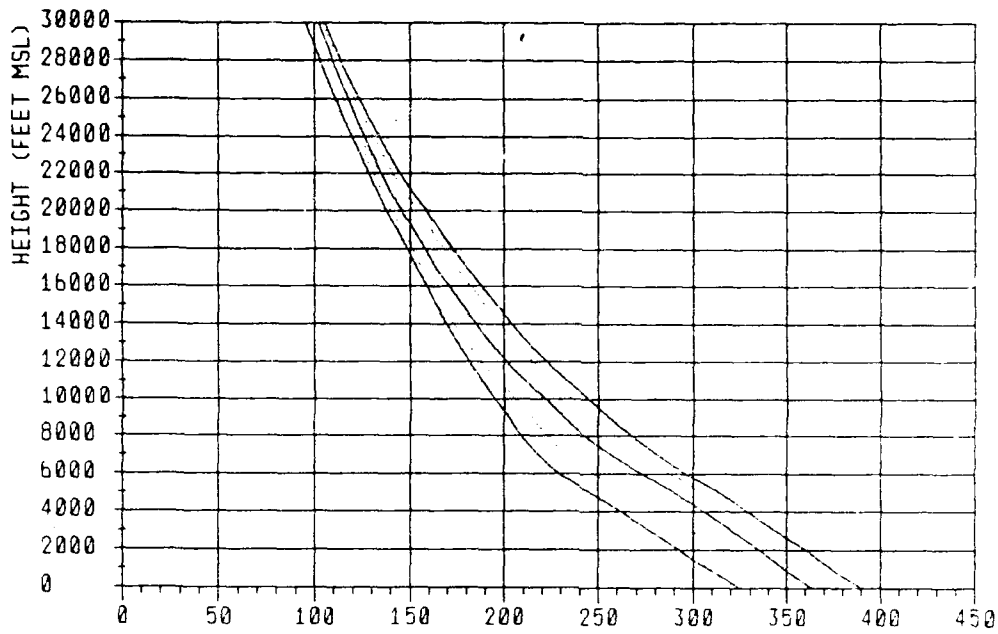
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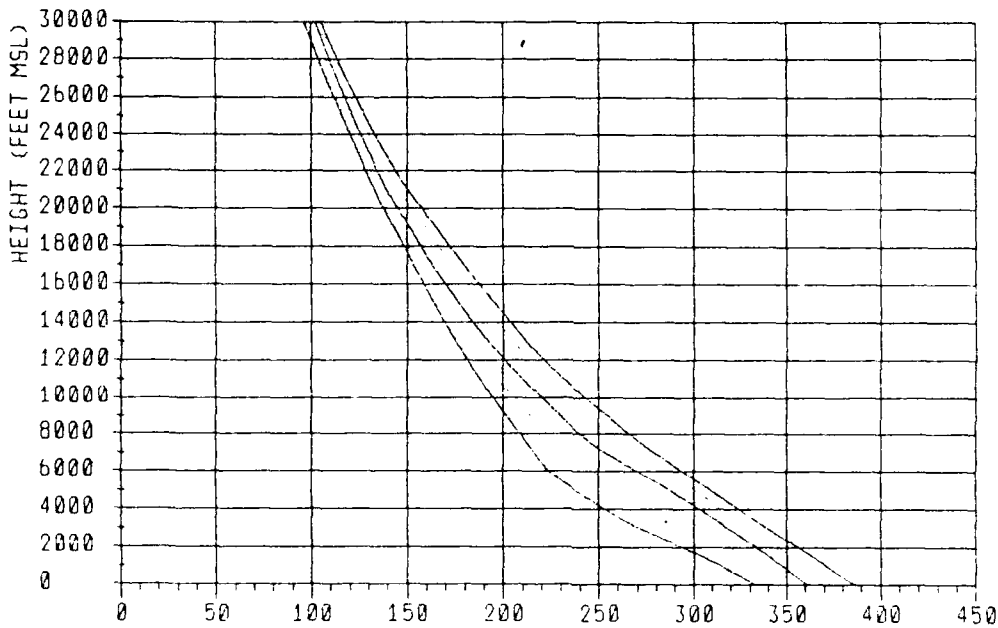
1200Z

FIGURE B-3-5

N PERCENTILES



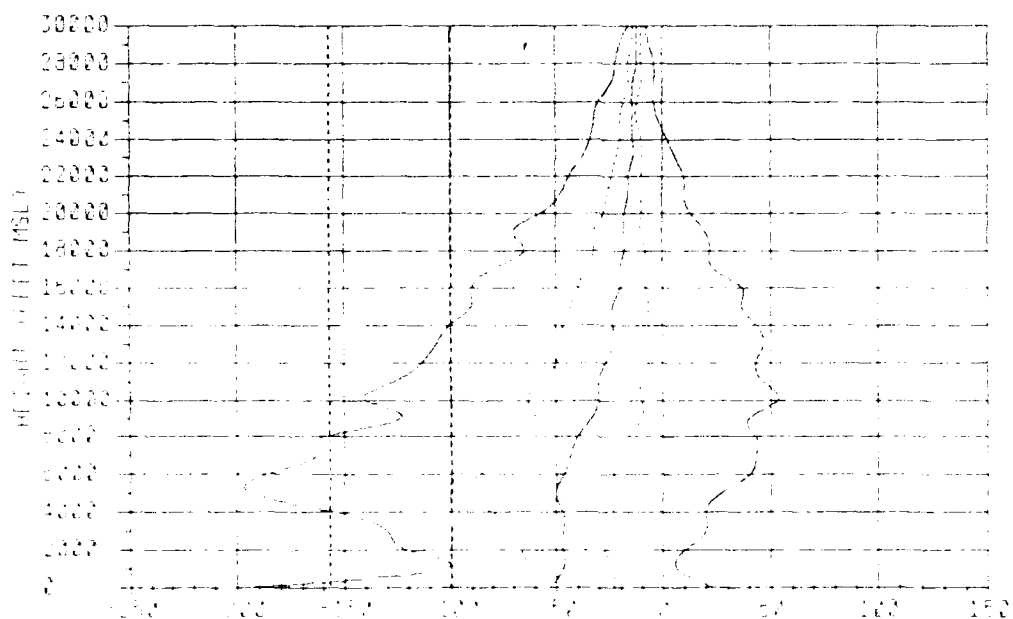
N (N-Units) 0000Z



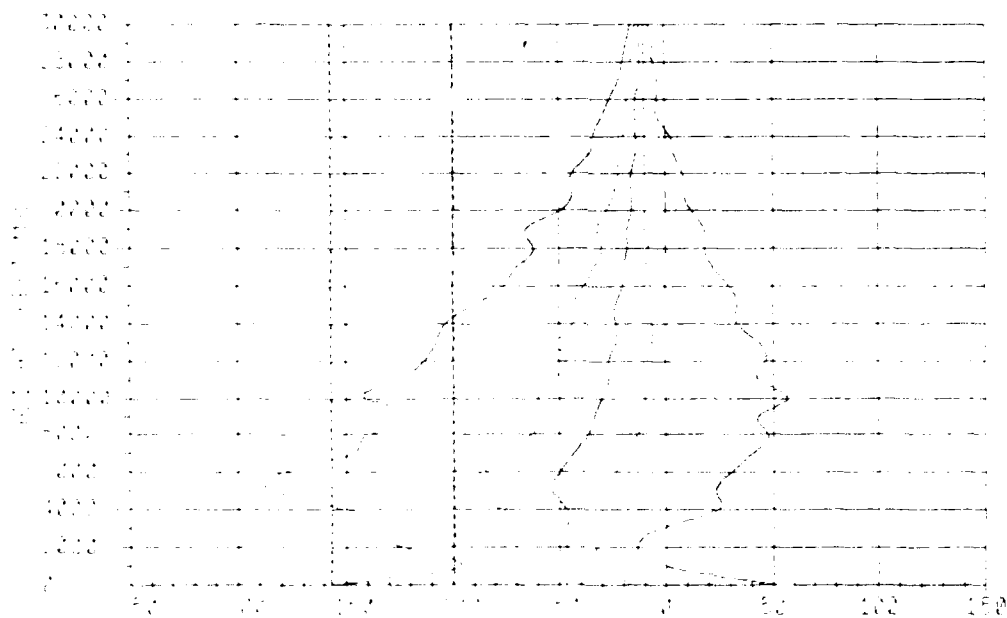
N (N-Units) 1200Z

FIGURE B-4-1-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-4-1-B

NORMAN MANLEY

WET SEASON

HOT FT MBL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	80%	90%		10%	50%	80%	90%		SRLR	SUB
8FC-800	333.78	383.22	370.00	383.75	386.03	-233.33	-135.77	-82.80	-18.75	90.00	11.6	33.7	8.3
800-1000	320.66	342.68	360.25	373.80	383.90	-120.83	-75.00	-50.00	-23.30	4.17	0.6	3.7	1.7
1000-1500	312.84	334.38	352.88	367.19	376.68	-104.16	-70.83	-47.91	-25.00	4.17	0.3	1.7	1.7
1500-2000	303.74	326.08	346.89	360.75	369.40	-106.25	-66.66	-47.91	-25.00	8.25	0.7	2.0	1.8
2000-2500	298.52	318.89	338.89	353.80	362.20	-116.66	-66.66	-45.83	-27.08	8.33	0.9	2.5	2.0
2500-3000	288.00	310.88	331.08	345.19	354.19	-128.16	-72.91	-47.91	-27.08	10.42	1.1	2.9	2.4
3000-3500	278.78	302.58	323.39	336.75	344.58	-127.33	-72.91	-45.83	-25.00	20.83	1.0	3.8	3.4
3500-4000	271.00	285.80	316.38	328.88	338.88	-133.75	-77.08	-47.91	-25.00	18.66	1.5	5.2	3.4
4000-4500	262.84	287.87	308.75	321.38	329.20	-141.66	-79.16	-47.91	-25.00	18.66	1.7	5.2	3.7
4500-5000	254.20	280.22	301.04	314.25	321.88	-187.50	-83.33	-47.91	-25.00	27.08	3.7	9.7	5.5
5000-6000	242.50	264.00	288.00	302.58	312.25	-187.50	-91.88	-50.00	-23.44	22.81	5.8	14.0	8.0
6000-7000	228.34	248.08	271.25	288.31	294.44	-183.33	-83.33	-48.81	-23.30	19.97	5.8	11.2	8.8
7000-8000	218.10	232.80	255.80	272.25	280.25	-180.41	-76.69	-43.36	-20.08	43.75	4.3	9.7	8.1
8000-9000	208.30	222.00	241.30	258.38	267.00	-183.38	-86.66	-37.50	-16.66	38.71	3.6	7.8	8.5
9000-10000	200.45	212.70	229.30	245.00	253.30	-123.30	-56.77	-33.33	-10.03	43.38	2.1	5.8	10.8
10000-11000	193.30	205.80	219.00	233.20	242.20	-138.72	-63.4	-30.07	-10.03	50.00	3.3	8.4	14.9
11000-12000	188.48	194.10	208.30	222.40	230.80	-128.89	-53.38	-26.89	-10.03	43.24	2.8	7.2	13.0
12000-13000	180.10	185.80	199.20	212.70	219.90	-116.66	-48.74	-26.58	-6.84	46.74	2.6	5.4	13.5
13000-14000	173.80	178.30	190.80	204.20	210.80	-110.02	-48.81	-23.30	-6.84	43.38	1.7	5.4	14.8
14000-15000	167.80	171.80	182.70	195.80	201.70	-100.00	-48.81	-23.30	-6.84	39.97	1.4	3.8	14.4
15000-16000	162.30	165.40	175.40	187.40	193.70	-89.97	-43.36	-23.30	-6.77	38.71	1.2	2.9	13.0
16000-17000	157.00	159.80	168.40	180.00	186.00	-86.01	-37.98	-20.00	-7.97	32.52	0.7	2.5	12.5
17000-18000	151.80	154.30	161.80	172.10	177.70	-74.08	-33.98	-20.00	-7.97	22.03	0.3	1.8	10.5
18000-19000	148.00	148.80	155.20	164.90	170.30	-68.04	-33.00	-18.04	-8.08	23.98	1.1	1.4	12.3
19000-20000	141.10	143.20	149.00	157.70	162.48	-58.04	-30.00	-17.98	-10.00	13.98	0.2	0.5	7.6
20000-21000	138.30	139.40	143.40	151.20	155.60	-48.08	-26.01	-16.01	-10.00	12.03	0.2	0.4	7.7
21000-22000	131.70	133.80	138.30	145.10	149.00	-54.01	-23.98	-16.01	-10.00	1.98	0.1	0.1	8.6
22000-23000	127.20	129.80	133.50	139.50	143.10	-41.95	-22.03	-15.94	-10.00	6.02	0.0	0.1	5.7
23000-24000	122.40	124.80	128.80	133.70	137.10	-34.08	-20.00	-14.08	-10.00	3.98	0.0	0.2	5.1
24000-25000	117.80	120.60	123.80	128.10	130.80	-32.03	-20.00	-13.98	-10.00	1.98	0.1	0.1	4.2
25000-26000	111.30	118.80	119.50	123.20	125.70	-30.00	-18.04	-13.98	-11.95	-2.03	0.1	0.0	1.6
26000-27000	109.20	112.80	115.40	118.50	120.70	-28.01	-18.01	-13.98	-10.00	-3.98	0.0	0.1	1.8
27000-28000	104.84	108.80	111.10	113.80	115.88	-22.03	-16.01	-12.03	-10.00	-4.08	0.0	0.0	1.0
28000-29000	100.70	104.80	107.00	108.30	110.88	-20.00	-14.08	-12.03	-10.00	-6.02	0.0	0.0	1.2
29000-30000	97.00	101.50	103.40	105.30	106.70	-17.98	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.1
30000-31000	93.40	98.20	99.90	101.70	102.80	-18.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.2
31000-32000	90.08	94.80	96.50	98.20	99.10	-22.03	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.1
32000-33000	88.21	91.30	92.80	94.80	95.50	-24.08	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
33000-34000	88.00	90.00	91.40	93.80	94.50	-27.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.80	85.80	88.80	91.70	92.20	-23.98	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

0000Z

HOT FT MBL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	80%	90%		10%	50%	80%	90%		SRLR	SUB
8FC-800	340.50	353.25	385.88	378.88	391.35	-183.75	-102.08	-50.00	0.00	83.80	4.7	18.9	14.0
800-1000	332.08	348.25	358.18	370.38	380.38	-113.29	-68.68	-45.83	-22.91	18.68	0.4	2.2	3.4
1000-1500	321.82	339.19	351.38	363.42	373.19	-102.08	-68.68	-45.83	-25.00	4.17	0.2	1.3	1.7
1500-2000	310.48	322.00	344.58	359.68	365.88	-104.16	-68.68	-45.83	-27.08	0.00	0.2	1.8	1.2
2000-2500	299.82	324.88	337.56	348.25	358.21	-120.83	-70.83	-45.83	-31.25	-12.50	0.6	2.2	0.4
2500-3000	280.00	318.50	328.50	341.00	348.25	-125.00	-72.91	-47.91	-33.33	-16.68	1.1	3.4	0.4
3000-3500	274.85	308.00	321.25	332.38	339.80	-122.91	-72.91	-47.91	-33.33	-7.54	0.8	3.8	0.8
3500-4000	268.31	299.88	313.88	324.75	332.19	-143.75	-75.00	-47.91	-33.33	0.00	1.3	4.9	1.8
4000-4500	258.58	281.38	308.00	317.50	324.52	-139.58	-77.08	-47.91	-31.25	16.66	1.5	4.5	2.6
4500-5000	251.00	282.75	298.38	310.35	317.42	-177.08	-83.33	-47.91	-28.18	22.91	3.7	10.8	4.8
5000-6000	238.70	263.08	288.75	298.25	307.88	-175.00	-95.83	-52.08	-25.00	20.08	5.8	17.2	5.5
6000-7000	224.00	244.80	268.18	283.88	292.00	-172.81	-83.33	-47.91	-23.30	33.33	5.0	12.4	6.1
7000-8000	215.80	232.40	252.80	269.50	278.18	-140.10	-72.91	-43.36	-19.92	38.89	2.2	9.9	7.4
8000-9000	207.80	221.80	238.80	255.30	264.88	-133.33	-80.02	-38.71	-13.41	46.74	2.9	5.9	8.8
9000-10000	200.00	212.80	227.80	242.30	251.88	-116.66	-53.38	-33.33	-10.03	46.81	2.0	4.6	11.2
10000-11000	193.20	204.20	218.20	231.10	240.50	-139.97	-67.02	-29.95	-10.03	50.00	3.2	7.6	15.1
11000-12000	188.20	194.80	207.90	220.80	228.00	-123.30	-50.00	-26.89	-10.03	43.23	2.8	6.1	11.8
12000-13000	180.10	188.10	198.90	211.80	218.90	-110.02	-48.74	-26.58	-6.84	50.00	2.1	5.5	13.0
13000-14000	173.80	178.30	190.30	203.10	209.90	-106.84	-46.74	-23.44	-6.84	40.10	1.9	5.2	14.8
14000-15000	167.80	171.80	182.00	194.80	201.20	-100.00	-43.38	-23.30	-6.77	33.33	1.5	4.6	13.9
15000-16000	162.30	165.40	174.70	186.30	192.99	-88.71	-39.97	-23.30	-9.90	10.07	0.7	2.7	12.7
16000-17000	157.00	159.80	168.00	179.00	186.00	-77.98	-36.71	-20.02	-10.00	24.88	0.1	1.9	11.8
17000-18000	151.80	154.30	161.00	171.40	177.10	-64.00	-32.03	-20.00	-10.00	20.00	0.1	1.3	8.6
18000-19000	148.00	148.80	154.80	163.70	169.50	-67.98	-30.00	-18.04	-8.08	21.98	0.9	1.2	11.4
19000-20000	141.10	143.20	149.80	158.30	161.40	-52.03	-30.00	-17.98	-10.00	10.00	0.0	0.5	6.3
20000-21000	138.40	139.50	143.10	150.00	154.80	-50.17	-28.01	-16.01	-11.95	10.00	0.1	0.5	8.2
21000-22000	131.80	133.90	138.00	144.00	148.30	-42.03	-23.98	-16.01	-10.00	8.05	0.1	0.1	6.7
22000-23000	127.48	129.80	133.20	138.80	142.40	-33.98	-22.03	-15.94	-10.00	6.02	0.2	0.1	4.9
23000-24000	122.50	124.70	128.40	132.80	136.40	-32.03	-20.00	-13.98	-10.00	1.98	0.0	0.2	3.9
24000-25000	117.80	120.60	123.80	127.90	130.50	-32.03	-20.00	-13.98	-10.00	0.00	0.0	0.2	3.6
25000-26000	112.70	116.80	119.30	122.70	125.40	-27.98	-18.04	-13.98	-11.95	-3.98	0.0	0.0	0.9
26000-27000	109.30	112.80	115.20	118.10	120.40	-23.98	-18.01	-13.98	-10.00	-3.98	0.0	0.0	1.4
27000-28000	105.10	108.80	111.00	113.80	115.70	-21.95	-16.01	-12.03	-10.00	-5.94	0.0	0.0	0.8
28000-29000	100.74	105.00	108.90	109.00	110.80	-18.04	-14.08	-12.03	-10.00	-6.02	0.1	0.0	0.7
29000-30000	97.10	101.50	103.30	105.20	106.50	-17.98	-13.98	-11.95	-10.00	-7.97	0.1	0.0	0.2
30000-31000	93.40	98.20	99.90	101.70	102.80	-18.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.1
31000-32000	90.20	94.80	96.50	98.10	99.10	-22.03	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.4
32000-33000	88.70	91.30	92.80	94.80	95.50	-23.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0</

NORMAN MANLEY

WET SEASON

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	11.6	98	292	390	33.7	98	292	390	97.7	2389	8087	34875	8.3	98	292	944
500-1000	0.0				0.6	98	98	1181	3.2	98	4877	17740	0.6	98	98	1388
1000-1500	0.3	295	394	591	0.6	98	482	1033	2.1	98	4827	27770	0.6	98	787	1693
1500-2000	0.6	118	295	591	1.3	98	394	945	1.4	98	2654	21818	0.6	108	640	1742
2000-2500	0.6	207	394	788	1.7	98	482	1201	2.0	98	4828	33108	0.6	98	787	1898
2500-3000	0.7	98	295	591	1.8	98	591	1181	2.4	98	1888	32317	1.3	98	691	2047
3000-3500	0.6	295	492	699	2.2	98	591	1043	2.8	98	2382	10881	1.7	98	691	1683
3500-4000	0.9	197	295	699	3.0	98	541	984	3.9	98	2185	31234	1.3	98	482	1063
4000-4500	1.1	98	443	699	2.6	98	492	787	3.5	98	1083	30841	1.8	98	691	908
4500-5000	2.8	177	394	699	7.3	98	394	688	7.8	98	5413	30280	3.3	187	394	1181
5000-6000	4.0	98	394	699	8.6	98	492	984	14.5	98	5118	28483	3.8	98	492	1408
6000-7000	4.5	98	295	502	7.8	98	394	787	12.4	394	4821	28438	4.7	98	691	1181
7000-8000	3.5	98	295	492	7.4	98	295	699	12.8	98	3484	27881	5.1	98	492	1378
8000-9000	2.9	98	295	492	6.5	98	295	699	10.8	98	2284	28218	6.8	98	691	1280
9000-10000	1.9	98	197	394	4.7	98	295	482	9.3	98	1478	28427	7.8	98	394	884
10000-11000	3.1	98	197	295	7.5	98	197	482	17.0	98	2854	24640	8.6	98	691	1280
11000-12000	2.5	98	197	374	6.4	98	197	394	12.1	98	3189	23858	8.8	98	691	1181
12000-13000	2.6	98	197	295	4.9	98	197	295	11.4	98	2888	22474	8.8	98	541	1181
13000-14000	1.8	98	148	228	4.8	98	197	394	14.0	98	3117	21888	9.4	98	394	984
14000-15000	1.4	98	197	197	3.8	98	197	295	12.9	98	4298	20804	10.2	98	394	988
15000-16000	1.1	98	98	197	2.7	98	197	295	11.1	98	4828	18718	8.7	98	394	888
16000-17000	0.7	108	184	184	2.3	102	184	223	11.4	381	8728	18701	8.8	184	492	888
17000-18000	0.3	184	184	184	1.8	184	184	184	9.1	820	10891	17717	7.8	184	492	984
18000-19000	1.1	184	184	184	1.4	184	184	184	11.8	858	18912	18589	9.8	184	492	820
19000-20000	0.2	184	184	184	0.5	184	184	328	6.7	984	14828	18748	5.8	184	328	888

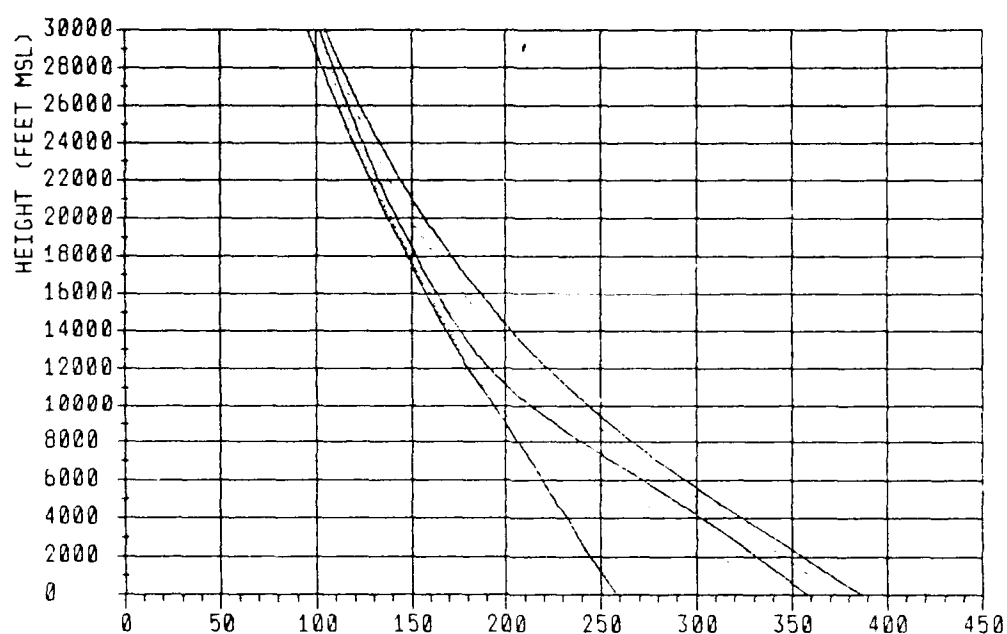
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BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	4.7	98	292	390	18.8	98	292	390	98.3	2588	8481	35287	18.0	184	390	888
500-1000	0.2	98	344	492	0.5	98	197	1081	3.4	98	6841	34288	0.6	98	98	1102
1000-1500	0.2	197	394	591	0.5	98	591	1181	1.8	98	3780	20308	0.4	98	98	891
1500-2000	0.1	295	394	492	1.0	98	591	1299	1.8	98	3888	33400	0.8	98	98	810
2000-2500	0.8	295	394	884	1.3	98	541	855	1.0	98	3347	32808	0.3	98	98	288
2500-3000	0.7	98	295	758	2.2	197	492	1083	1.8	138	3347	32484	0.3	98	98	288
3000-3500	0.6	197	394	758	1.8	98	492	788	2.0	295	4337	31778	0.8	118	640	1683
3500-4000	0.8	98	344	840	3.1	98	492	1122	2.8	98	1870	21014	1.1	98	394	1270
4000-4500	1.0	98	492	709	2.3	98	492	884	2.7	98	3543	15931	1.7	187	591	888
4500-5000	2.8	98	295	699	6.5	98	74	866	9.1	98	4232	30280	2.8	187	392	1083
5000-6000	4.0	98	394	591	11.8	98	443	888	17.3	288	5414	28880	3.3	98	394	984
6000-7000	4.1	98	295	591	8.8	98	394	699	13.0	98	4281	28528	4.8	98	691	1083
7000-8000	2.2	98	295	492	8.2	98	295	699	11.1	187	3248	27883	8.2	98	691	1280
8000-9000	2.6	98	197	394	4.8	98	295	591	9.3	98	2481	28510	7.5	98	492	1280
9000-10000	1.7	98	197	394	3.8	98	197	394	8.7	98	1181	28427	8.1	98	691	1083
10000-11000	3.0	98	197	295	8.8	98	295	492	15.8	98	3593	24837	8.4	98	492	1181
11000-12000	2.3	98	197	295	5.5	98	197	394	11.8	98	2188	23488	8.0	98	492	1181
12000-13000	2.0	98	98	295	4.8	98	197	394	11.4	98	2883	22812	9.3	187	492	1181
13000-14000	1.8	98	197	295	4.8	98	148	295	14.4	98	3287	21887	9.8	98	443	984
14000-15000	1.5	98	98	197	4.2	98	197	295	12.8	98	4593	20703	9.3	98	394	1033
15000-16000	0.7	98	98	197	2.3	98	98	207	11.3	98	8200	18718	8.8	98	394	873
16000-17000	0.2	184	184	184	1.7	98	184	328	9.8	381	7710	18780	8.2	184	498	820
17000-18000	0.1	184	184	184	1.2	184	184	184	7.3	804	17081	17717	6.0	213	492	938
18000-19000	0.9	184	184	184	1.2	184	184	184	11.5	858	18912	18589	9.4	184	328	820
19000-20000	0.0				0.5	184	184	184	5.5	722	14828	18748	5.0	184	328	820

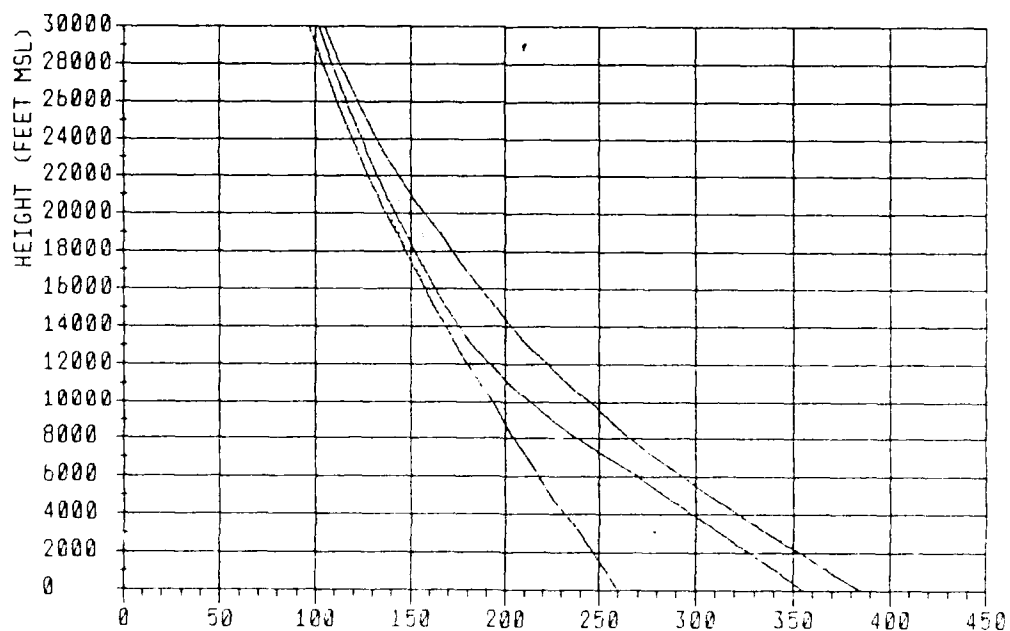
1200Z
FIGURE B-4-1-D

B-57

N PERCENTILES



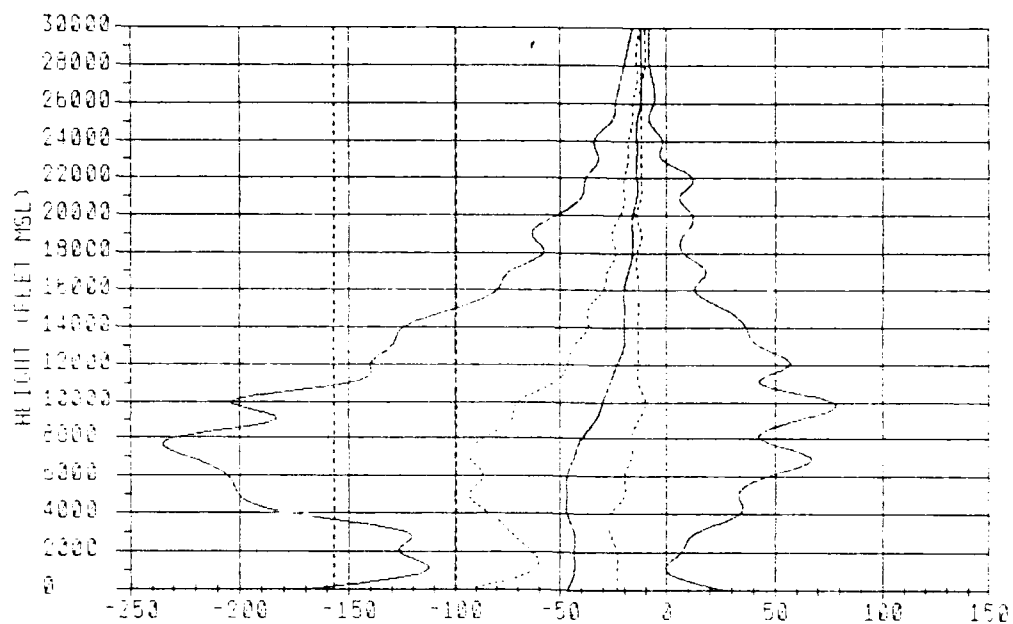
N (N-Units) 0000Z



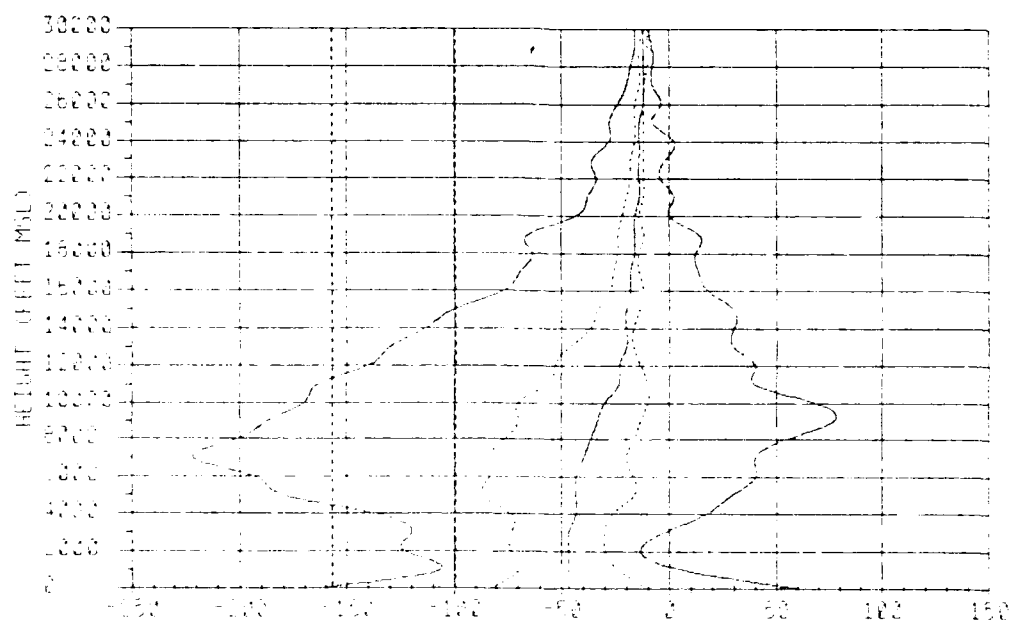
N (N-Units) 1200Z

FIGURE B-4-2-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-4-2-B

NORMAN MANLEY

WET-DRY TRANSITION

HGT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
500-1000	280.88	348.19	383.00	378.00	392.08	-218.23	-114.58	-58.25	-20.83	41.10	8.8	24.2	7.0
1000-1500	288.48	337.25	384.80	388.00	380.42	-127.08	-68.68	-43.75	-22.81	0.00	0.5	2.7	1.3
1500-2000	282.80	330.21	347.88	382.80	372.58	-118.33	-63.75	-41.88	-22.81	0.00	0.2	1.6	1.1
2000-2500	249.70	323.80	341.53	358.00	358.42	-110.41	-62.80	-41.88	-22.81	-2.08	0.2	2.2	1.3
2500-3000	246.43	318.80	335.19	348.44	359.38	-118.48	-62.80	-41.88	-23.30	-2.08	1.3	2.8	1.1
3000-3500	242.80	308.18	327.88	341.88	350.80	-125.00	-68.68	-43.75	-25.00	12.50	1.1	3.8	1.8
3500-4000	239.17	302.37	320.80	332.87	340.88	-118.37	-72.91	-43.75	-27.08	10.42	0.2	4.8	2.2
4000-4500	236.17	295.84	313.44	325.38	332.82	-140.88	-77.08	-45.83	-27.08	11.10	1.4	5.8	2.2
4500-5000	233.98	288.80	308.00	317.38	328.13	-167.38	-81.28	-45.83	-27.08	29.18	2.7	8.2	3.8
5000-6000	230.84	281.88	298.88	308.75	317.82	-187.38	-83.33	-45.83	-25.00	37.80	4.4	10.8	8.0
6000-7000	225.38	264.88	288.25	298.18	307.25	-198.83	-88.58	-47.91	-20.83	33.33	5.9	13.8	4.5
7000-8000	219.88	243.40	278.88	288.88	292.38	-220.48	-88.71	-48.83	-20.83	50.00	8.8	13.2	9.8
8000-9000	213.80	227.80	268.40	271.38	278.75	-220.08	-98.35	-43.23	-19.82	62.50	8.0	18.8	11.3
9000-10000	205.80	212.50	238.80	258.00	265.75	-233.33	-80.08	-38.88	-18.88	48.84	9.0	18.0	11.2
10000-11000	198.80	202.40	223.80	244.80	252.80	-178.95	-70.05	-33.33	-13.28	68.68	5.4	11.3	11.8
11000-12000	185.20	187.48	198.10	221.20	230.70	-138.97	-50.00	-23.44	-13.41	43.84	3.4	7.5	10.1
12000-13000	179.00	180.80	188.40	211.70	218.58	-138.97	-48.81	-23.30	-13.41	50.00	3.4	6.2	9.8
13000-14000	172.80	174.40	181.30	202.08	210.83	-133.33	-43.23	-20.05	-13.28	43.38	3.7	5.8	9.8
14000-15000	168.80	168.80	173.80	193.30	201.18	-113.28	-38.71	-20.05	-13.28	33.33	2.2	4.8	9.5
15000-16000	161.40	162.80	167.40	184.20	192.88	-98.81	-33.33	-18.82	-13.41	13.41	1.1	5.4	8.1
16000-17000	158.20	157.70	161.70	178.10	185.50	-78.14	-28.85	-17.88	-13.35	17.88	0.5	1.8	8.8
17000-18000	151.10	152.30	158.00	168.47	178.70	-68.83	-28.01	-17.88	-13.98	18.00	0.5	0.8	5.1
18000-19000	145.38	148.70	150.80	160.70	169.11	-85.95	-23.88	-18.01	-12.03	10.00	0.5	1.4	5.8
19000-20000	140.80	141.80	144.80	153.30	161.18	-53.53	-24.08	-18.01	-13.98	9.88	0.0	0.2	5.8
20000-21000	135.82	137.30	140.20	147.18	154.28	-47.55	-21.88	-18.01	-13.98	10.00	0.0	0.8	4.8
21000-22000	131.30	132.80	135.80	141.80	148.30	-37.98	-20.00	-14.08	-12.03	8.02	0.0	0.2	4.4
22000-23000	128.91	128.70	131.30	138.70	142.48	-41.88	-20.00	-13.98	-11.95	10.00	0.2	0.2	5.2
23000-24000	122.04	125.80	128.70	131.30	138.38	-32.00	-17.88	-13.98	-11.95	-2.78	0.0	0.0	2.2
24000-25000	117.18	118.80	122.20	128.10	130.30	-30.00	-17.88	-13.98	-11.95	0.00	0.0	0.0	2.7
25000-26000	112.88	118.00	118.20	121.40	128.00	-23.88	-18.01	-13.98	-11.95	-7.97	0.0	0.0	1.3
26000-27000	108.88	112.20	114.30	117.10	120.10	-23.88	-18.01	-12.03	-11.95	-8.02	0.2	0.2	1.1
27000-28000	104.80	108.10	110.30	112.70	115.30	-20.00	-14.08	-12.03	-10.00	-8.94	0.0	0.0	1.1
28000-29000	100.88	104.50	108.40	108.40	110.40	-20.00	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
29000-30000	97.08	101.20	102.80	104.70	108.20	-18.01	-12.03	-11.95	-10.00	-8.08	0.0	0.0	0.3
30000-31000	93.80	98.00	98.80	101.20	102.40	-14.08	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
31000-32000	90.20	94.80	95.30	97.80	98.80	-17.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
32000-33000	88.80	91.20	92.80	94.40	95.40	-21.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	83.27	87.80	88.30	90.70	91.40	-23.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.80	85.80	86.70	87.70	88.30	-18.04	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

0000Z

HGT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
SFC-500	261.87	343.88	388.08	378.01	388.88	-180.88	-100.00	-47.91	-2.08	97.91	4.8	18.8	18.5
500-1000	287.88	338.18	352.00	366.30	377.92	-120.83	-70.83	-45.83	-20.83	27.08	0.8	3.2	4.9
1000-1500	284.24	328.88	345.25	358.25	370.38	-108.25	-68.68	-45.83	-22.91	10.42	0.0	2.0	2.6
1500-2000	281.10	322.88	338.18	352.25	363.88	-107.38	-68.75	-45.83	-27.08	-8.25	0.2	2.8	1.1
2000-2500	247.84	315.88	331.08	344.50	355.38	-118.87	-72.91	-45.83	-28.18	-10.42	0.5	2.8	0.3
2500-3000	244.08	307.25	323.18	338.18	347.00	-120.83	-72.91	-45.83	-31.25	-10.42	0.3	3.4	0.3
3000-3500	240.40	288.18	315.18	327.88	337.88	-118.88	-72.91	-45.83	-31.25	-8.33	0.8	2.2	0.8
3500-4000	236.20	281.38	308.00	320.38	330.83	-121.88	-70.83	-43.75	-29.18	5.28	1.2	2.3	1.7
4000-4500	232.80	284.18	300.75	313.18	322.84	-133.33	-70.83	-43.75	-29.18	10.42	1.1	3.8	2.5
4500-5000	228.20	278.38	293.75	308.88	318.03	-148.91	-78.00	-43.75	-28.00	28.18	2.8	7.5	8.5
5000-6000	224.04	258.75	282.25	297.00	308.88	-172.91	-83.33	-43.75	-18.66	27.08	4.8	13.2	8.2
6000-7000	217.88	241.30	288.25	283.00	291.50	-191.88	-83.33	-43.75	-18.75	37.50	8.8	12.8	9.0
7000-8000	212.28	224.80	283.80	270.50	278.50	-223.83	-83.33	-40.10	-18.66	48.31	9.0	13.7	8.5
8000-9000	204.34	211.80	237.30	257.40	265.33	-208.74	-78.88	-38.71	-18.66	53.38	8.8	14.1	11.2
9000-10000	187.80	202.40	223.00	244.80	253.80	-188.74	-88.82	-33.33	-13.41	74.03	5.8	9.8	12.8
10000-11000	191.80	194.70	210.80	232.70	242.80	-183.88	-88.88	-28.88	-13.28	53.84	7.0	12.4	14.1
11000-12000	184.80	187.30	188.70	221.80	230.85	-158.84	-53.25	-23.30	-13.28	33.33	4.8	8.2	8.8
12000-13000	178.00	180.80	188.10	211.20	220.20	-138.97	-50.00	-23.30	-13.41	43.38	3.5	6.7	8.0
13000-14000	172.40	174.20	180.80	201.70	210.30	-117.79	-40.10	-20.05	-18.66	28.88	2.4	8.8	7.8
14000-15000	168.80	168.30	173.00	192.50	200.80	-108.84	-38.88	-20.05	-18.66	28.88	1.5	4.4	7.8
15000-16000	161.00	162.70	168.80	183.30	192.80	-88.97	-30.87	-18.82	-13.41	23.30	1.7	2.3	8.2
16000-17000	155.80	157.50	161.40	175.80	185.10	-70.00	-28.88	-17.88	-13.98	13.98	0.2	1.8	8.8
17000-18000	150.80	152.20	155.75	167.40	177.00	-87.01	-28.93	-17.88	-13.98	11.00	0.8	1.2	4.7
18000-19000	145.20	148.70	150.40	158.50	168.30	-88.01	-23.98	-18.01	-12.03	17.88	0.5	1.7	8.5
19000-20000	140.30	141.80	144.80	152.20	161.50	-48.74	-23.98	-18.01	-13.98	3.88	0.2	0.3	3.2
20000-21000	135.80	137.30	140.00	148.23	154.80	-42.02	-21.88	-18.01	-13.98	2.03	0.0	0.3	3.5
21000-22000	131.00	132.80	135.80	140.70	148.00	-38.01	-20.00	-14.08	-12.03	-1.95	0.2	0.0	2.2
22000-23000	126.40	128.80	131.10	138.80	141.80	-37.95	-17.88	-13.98	-11.95	-1.95	0.0	0.3	1.8
23000-24000	121.88	124.00	128.70	130.80	135.40	-28.87	-18.01	-13.98	-11.95	-3.88	0.0	0.0	2.0
24000-25000	117.28	118.80	122.30	128.80	128.50	-28.04	-18.01	-13.98	-11.95	-1.88	0.0	0.0	3.1
25000-26000	113.28	116.00	118.20	121.30	124.70	-23.88	-18.01	-13.98	-11.95	-8.02	0.0	0.0	0.8
26000-27000	108.88	112.20	114.30	118.90	118.90	-21.88	-18.01	-12.03	-11.95	-8.02	0.0	0.0	1.2
27000-28000	105.30	108.10	110.30	112.60	115.10	-18.04	-13.98	-12.03	-10.00	-8.00	0.0	0.0	0.8
28000-29000	100.88	104.80	108.40	108.30	110.20	-18.01	-13.98	-11.95	-10.00	-8.05	0.0	0.0	0.2
29000-30000	97.30	101.20	102.80	104.70	108.10	-18.01	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.2
30000-31000	93.88	98.00	98.80	101.20	102.40	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
31000-32000	90.83	94.70	96.30	97.80	98.80	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	87.00	91.10	92.70	94.40	95.30	-22.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	83.81	87.80	88.30	90.80	91.40	-23.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.87	85.80	86.70	87.80	88.20	-17.98	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
		10%	50%	90%			10%	50%	90%			10%	50%	90%			10%	50%	90%
5FC-500	8.8	95	292	451	24.2	98	292	390	98.4	2851	7382	35073	7.0	194	292	510			
500-1000	0.2	295	295	295	0.6	98	689	1378	1.9	1270	6844	34850	0.8	197	1181	1181			
1000-1500	0.2	394	394	394	1.1	98	988	1260	1.1	98	4331	34188	0.3	98	98	295			
1500-2000	0.2	591	391	521	0.6	295	787	1441	1.7	98	1518	23538	0.8	98	98	1772			
2000-2500	1.1	495	495	591	1.3	98	394	1083	1.7	98	2854	5551	0.8	98	1181	2264			
2500-3000	0.2	295	295	295	2.5	98	689	1073	2.4	98	3347	25217	0.8	197	591	2362			
3000-3500	0.0				2.4	217	591	928	3.0	98	3248	6791	0.8	98	295	681			
3500-4000	1.4	98	295	591	2.6	98	295	787	3.5	138	3180	31238	1.3	98	295	1476			
4000-4500	1.7	118	394	689	3.5	128	443	787	4.9	98	2018	10404	2.7	98	591	888			
4500-5000	3.6	98	295	591	7.6	98	492	888	8.0	98	2412	24018	2.8	177	591	1181			
5000-6000	4.0	197	492	591	8.1	98	492	935	14.1	688	4826	30014	2.8	98	837	2293			
6000-7000	8.4	197	394	591	10.7	98	394	787	12.2	98	3248	28597	7.9	98	492	1378			
7000-8000	7.0	98	295	522	14.3	98	295	889	16.8	98	2853	27937	5.9	98	492	1378			
8000-9000	7.3	177	295	492	12.1	98	197	492	19.5	98	2510	26808	7.4	98	492	1181			
9000-10000	4.0	98	295	492	9.5	98	295	492	13.6	98	2382	25752	7.8	98	688	884			
0000-11000	7.6	98	197	394	11.5	98	197	394	20.2	98	7418	24935	6.8	98	492	1181			
1000-12000	2.8	98	197	394	6.2	98	197	394	12.0	98	2858	23852	6.7	98	591	1181			
2000-13000	3.3	98	197	394	5.8	98	197	394	9.5	98	5594	22770	5.2	207	738	1588			
3000-14000	3.8	98	197	295	4.8	98	197	394	9.9	98	3707	21539	5.9	98	884	1181			
4000-15000	2.0	98	148	246	4.0	98	197	394	9.8	98	4823	20703	6.1	118	394	1181			
5000-16000	1.1	98	98	197	3.1	98	197	381	7.8	325	4780	18817	3.8	98	492	781			
6000-17000	0.3	98	131	164	1.7	105	184	308	7.2	289	4838	18537	6.8	184	478	1033			
7000-18000	0.5	184	184	184	0.8	184	184	184	3.9	282	4285	17881	2.8	184	492	1188			
8000-19000	0.8	184	184	184	1.4	184	184	184	6.7	492	15912	18788	4.8	184	328	820			
9000-20000	0.0				0.2	184	184	184	3.0	1283	14928	18588	4.4	184	492	984			

0000Z

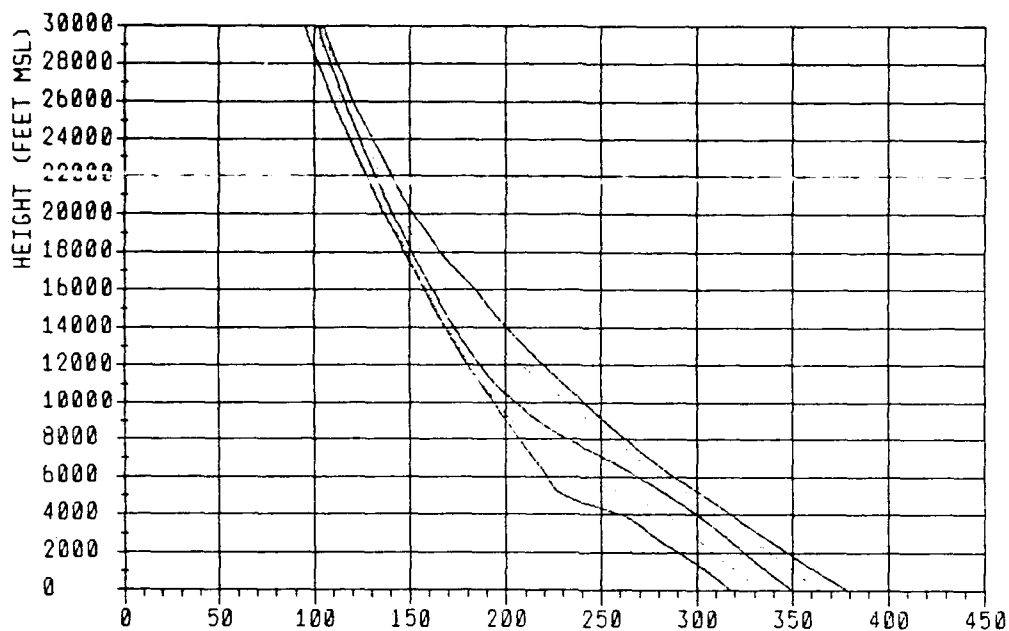
BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
		10%	50%	90%			10%	50%	90%			10%	50%	90%			10%	50%	90%
5FC-500	4.9	95	292	392	16.8	98	292	470	97.4	2182	7877	34975	16.8	292	390	788			
500-1000	0.3	98	98	98	1.1	98	248	1989	4.2	98	5512	34581	1.2	98	98	688			
1000-1500	0.0				1.1	98	492	984	3.4	187	8548	34158	0.8	98	295	492			
1500-2000	0.2	295	295	295	1.4	98	591	984	1.7	807	3888	7509	0.0						
2000-2500	0.3	197	246	295	1.7	98	394	1260	1.8	630	6890	28728	0.2	689	689	689			
2500-3000	0.3	394	541	889	2.2	98	492	1083	2.8	1821	4134	32711	0.2	295	295	295			
3000-3500	0.8	197	295	787	0.8	98	295	688	1.4	1181	5118	31727	0.8	591	787	1378			
3500-4000	0.8	295	295	394	1.7	98	689	1161	2.2	98	2558	31510	0.8	98	394	1280			
4000-4500	0.8	197	295	394	2.8	98	394	984	2.2	98	4821	30939	1.8	128	787	1804			
4500-5000	2.8	177	394	689	4.9	98	394	787	5.4	98	2758	30280	3.7	98	394	1083			
5000-6000	2.7	98	394	600	8.4	98	394	787	14.6	98	2758	28889	5.5	98	591	1280			
6000-7000	5.9	98	295	492	10.3	98	295	688	14.0	98	3398	28872	5.5	98	443	1555			
7000-8000	7.4	98	295	492	11.2	98	295	689	16.0	118	6298	27988	5.6	98	591	1280			
8000-9000	8.8	98	295	492	10.9	98	295	591	17.8	98	5807	28808	7.6	98	591	1476			
9000-10000	4.4	98	295	492	7.9	98	197	492	13.7	98	3180	28919	8.1	98	394	1083			
10000-11000	8.4	98	197	394	11.7	98	197	492	18.1	98	8528	24935	8.3	98	443	1280			
11000-12000	3.8	98	295	394	7.7	98	197	394	13.4	98	3838	23813	4.8	98	689	1083			
12000-13000	3.2	98	197	295	5.9	98	197	492	10.0	98	9088	22888	6.9	295	394	1142			
13000-14000	2.0	98	98	295	5.0	98	197	394	8.4	98	3180	21818	5.3	98	394	787			
14000-15000	1.8	98	98	295	4.0	98	197	394	8.8	98	7874	20703	5.6	98	492	1181			
15000-16000	1.7	98	98	278	2.1	98	197	335	6.8	98	3821	19849	3.8	98	295	984			
16000-17000	0.2	184	184	184	1.8	141	184	328	5.3	400	18048	18727	4.3	184	482	984			
17000-18000	0.8	184	248	328	1.2	184	184	328	1.3	820	17081	17717	2.7	184	482	984			
18000-19000	0.8	184	184	184	1.7	184	184	184	6.2	591	13780	18078	5.3	184	482	888			
19000-20000	0.2	184	184	184	0.3	184	184	184	3.8	722	14928	18682	2.3	184	328	722			

1200Z

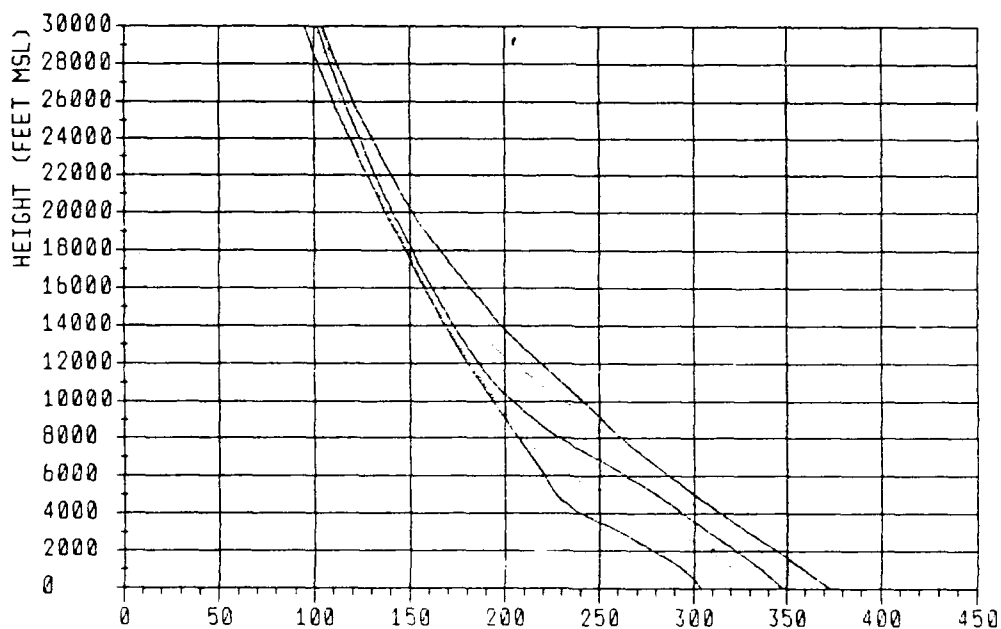
FIGURE B-4-2-D

B-61

N PERCENTILES



N (N-Units) 0000Z

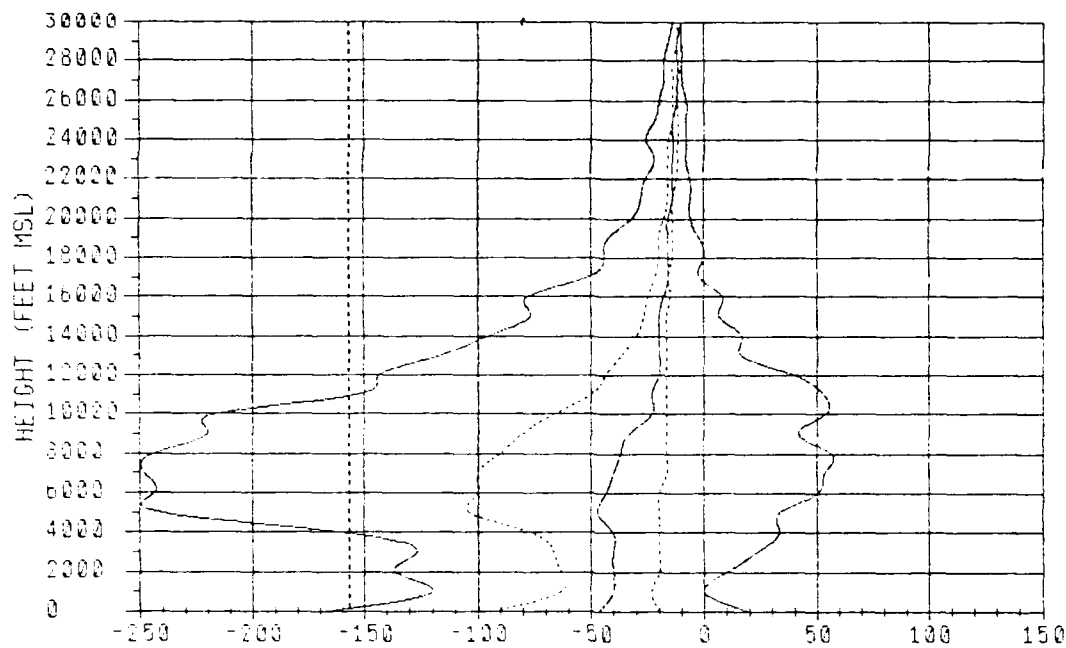


N (N-Units) 1200Z

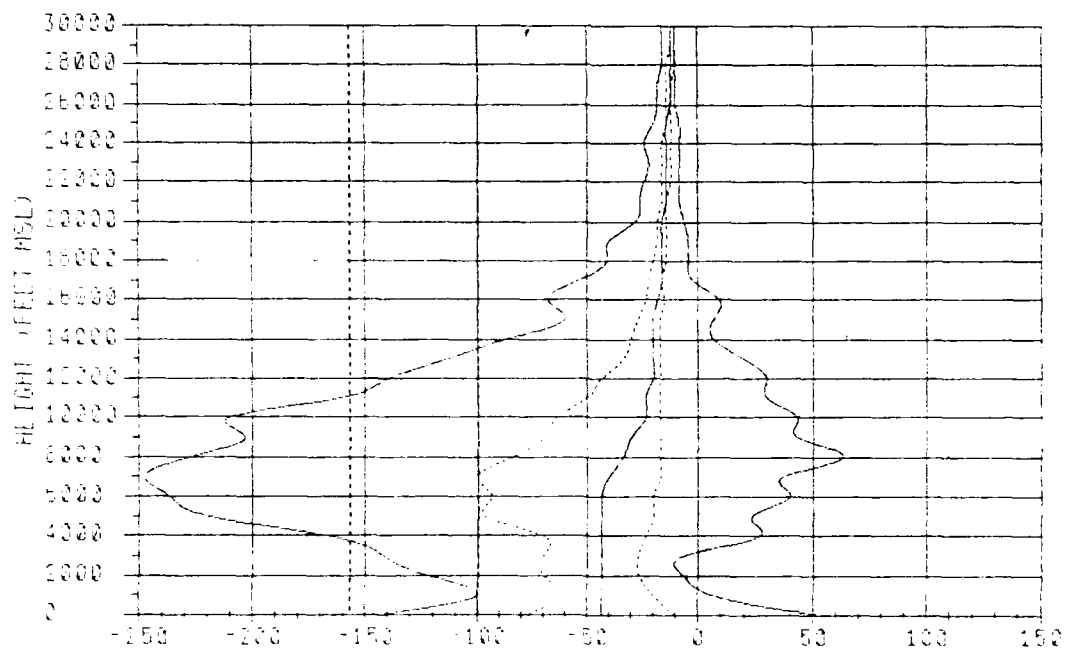
FIGURE B-4-3-A

B-62

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-4-3-B

NORMAN MANLEY

DRY SEASON

HGT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT DUCT		OCCURRENCE SLR		SUB
	1%	10%	50%	90%	95%	1%	10%	50%	90%	95%					
5FC-500	323.24	339.58	358.00	369.75	384.18	-193.98	-114.58	-58.25	-16.68	54.18		8.5	24.0		6.9
500-1000	314.04	331.50	346.38	360.38	372.75	-116.68	-88.75	-41.68	-22.91	-4.17		0.4	3.3		0.8
1000-1500	308.19	324.75	340.00	354.00	364.92	-108.18	-84.58	-39.58	-22.91	0.00		0.5	2.4		1.2
1500-2000	301.98	318.00	333.88	347.08	357.11	-127.84	-82.50	-39.58	-20.83	4.17		0.7	2.5		1.7
2000-2500	293.40	311.88	328.00	340.88	349.58	-133.33	-82.50	-37.50	-20.83	6.25		1.3	2.9		2.6
2500-3000	280.21	304.87	321.50	333.75	341.85	-128.54	-82.50	-37.50	-18.75	14.58		1.0	2.8		3.0
3000-3500	275.37	298.58	315.38	328.39	333.19	-120.83	-84.58	-39.58	-18.75	17.52		0.7	3.0		3.7
3500-4000	265.94	292.89	309.50	319.50	328.02	-131.25	-88.75	-39.58	-18.75	22.91		1.2	2.5		4.2
4000-4500	258.18	285.78	303.08	312.38	318.58	-180.00	-72.91	-39.58	-20.83	27.89		1.8	4.9		4.5
4500-5000	241.05	278.58	296.50	305.74	311.42	-204.18	-65.41	-43.75	-18.75	35.41		6.0	13.1		7.2
5000-6000	227.88	281.25	283.88	295.88	302.75	-245.80	-102.08	-45.83	-18.75	33.33		12.1	19.3		7.7
6000-7000	220.40	238.60	288.03	280.58	288.88	-279.94	-108.25	-43.75	-20.05	48.75		13.3	18.4		7.5
7000-8000	213.20	219.50	249.80	268.00	274.19	-289.94	-100.00	-39.97	-18.68	53.38		14.6	18.5		10.0
8000-9000	205.80	209.40	230.20	254.80	264.19	-258.82	-88.71	-38.59	-18.68	53.38		13.6	17.5		10.7
9000-10000	198.70	201.00	213.90	241.50	249.70	-210.02	-73.30	-30.07	-18.68	43.38		8.3	13.7		8.6
10000-11000	191.80	193.78	202.10	228.40	238.80	-207.04	-63.41	-23.30	-18.68	48.74		8.3	11.8		10.3
11000-12000	185.00	188.70	192.30	217.20	227.70	-198.84	-50.00	-23.30	-18.68	43.38		4.7	7.4		9.0
12000-13000	178.80	180.30	184.80	204.80	217.30	-137.01	-39.97	-20.05	-18.68	38.59		3.8	6.3		8.7
13000-14000	172.40	173.80	178.00	192.50	207.40	-108.84	-33.33	-20.05	-18.68	10.03		2.3	4.4		4.0
14000-15000	166.70	168.00	171.80	181.80	187.80	-88.97	-29.95	-19.92	-18.68	13.41		1.2	2.3		3.7
15000-16000	161.30	162.50	165.70	173.80	188.30	-78.58	-28.89	-19.92	-18.68	6.64		1.0	1.9		3.8
16000-17000	158.00	157.20	160.50	168.80	180.30	-67.40	-23.88	-17.98	-15.94	-2.03		0.1	1.2		2.4
17000-18000	150.90	152.00	154.80	158.70	171.48	-48.01	-20.00	-18.01	-15.94	-2.03		0.1	0.6		1.9
18000-19000	145.10	145.80	149.50	153.90	162.80	-44.28	-20.00	-18.01	-13.98	-2.03		0.1	0.5		2.1
19000-20000	139.80	141.60	144.10	148.00	155.10	-32.03	-18.04	-18.01	-13.98	-6.02		0.0	0.1		1.5
20000-21000	135.23	137.10	139.50	142.80	149.33	-28.04	-17.88	-15.94	-13.98	-6.02		0.0	0.0		0.8
21000-22000	130.50	132.70	135.00	138.00	144.10	-28.04	-18.01	-13.98	-13.98	-6.02		0.0	0.0		1.3
22000-23000	126.82	128.80	130.70	133.40	139.00	-23.98	-18.01	-13.98	-12.03	-6.02		0.0	0.0		1.1
23000-24000	121.00	123.80	126.30	128.80	133.80	-23.98	-15.84	-13.98	-11.95	-8.05		0.0	0.0		0.7
24000-25000	118.50	119.90	121.80	124.30	127.99	-23.98	-15.84	-13.98	-11.95	-8.05		0.0	0.0		0.5
25000-26000	112.18	116.00	118.00	120.00	122.80	-20.00	-14.08	-12.03	-11.95	-7.97		0.0	0.0		0.4
26000-27000	108.00	112.30	114.10	118.10	118.40	-20.00	-13.98	-12.03	-11.95	-8.05		0.0	0.0		0.5
27000-28000	103.60	108.10	110.10	112.10	114.10	-17.98	-13.98	-12.03	-10.00	-10.00		0.0	0.0		0.0
28000-29000	99.88	104.60	106.30	107.90	109.60	-18.01	-12.03	-11.95	-10.00	-10.00		0.0	0.0		0.1
29000-30000	98.08	101.20	102.80	104.40	105.70	-14.08	-12.03	-11.95	-10.00	-10.00		0.0	0.0		0.0
30000-31000	92.80	97.80	99.50	101.10	102.10	-14.08	-12.03	-10.00	-10.00	-7.97		0.0	0.0		0.0
31000-32000	88.22	94.70	98.20	97.80	98.70	-18.01	-12.03	-10.00	-10.00	-7.97		0.0	0.0		0.0
32000-33000	85.78	91.00	92.70	94.40	95.30	-20.00	-12.03	-10.00	-10.00	-7.97		0.0	0.0		0.0
33000-34000	82.40	87.80	88.20	90.70	91.40	-18.04	-12.03	-10.00	-10.00	-7.97		0.0	0.0		0.0
34000-35000	78.90	85.80	86.70	87.70	88.38	-12.03	-10.00	-10.00	-8.05	-7.97		0.0	0.0		0.0

0000Z

HGT FT MSL	N PERCENTILES					DNDH PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
5FC-500	317.57	339.50	352.38	365.75	377.85	-168.68	-91.68	-43.75	0.00	64.65	2.8	11.7	15.8
500-1000	302.33	333.00	345.38	357.38	368.57	-110.41	-64.58	-41.66	-18.75	16.91	0.5	1.5	2.7
1000-1500	272.78	328.38	339.00	350.88	361.38	-100.00	-62.50	-41.66	-20.83	4.17	0.3	1.6	1.8
1500-2000	291.41	319.58	332.88	345.08	354.39	-100.00	-64.58	-41.66	-22.91	4.31	0.6	1.8	1.8
2000-2500	282.74	312.69	326.25	338.88	348.58	-120.83	-68.75	-43.75	-27.08	-6.25	0.7	2.8	1.2
2500-3000	276.50	304.75	318.58	330.75	338.88	-127.08	-70.83	-43.75	-29.18	-8.33	1.2	3.6	0.9
3000-3500	268.04	298.60	311.00	322.88	330.08	-133.33	-70.83	-43.75	-29.18	-6.25	1.0	3.3	1.2
3500-4000	257.88	289.25	304.00	315.25	322.69	-145.83	-70.83	-43.75	-27.08	-2.00	1.5	3.1	1.6
4000-4500	245.48	281.88	288.75	308.00	315.88	-139.58	-68.75	-43.75	-28.00	27.08	1.3	3.5	2.5
4500-5000	238.07	273.88	280.19	301.58	308.75	-209.70	-79.18	-43.75	-22.81	25.18	4.4	10.6	9.3
5000-6000	227.48	255.00	279.00	291.88	300.08	-220.05	-95.83	-43.75	-17.83	23.61	9.8	17.7	6.7
6000-7000	220.30	233.00	262.50	278.38	285.75	-250.00	-80.00	-41.68	-18.92	39.97	12.0	16.6	7.5
7000-8000	213.50	219.30	248.00	268.00	273.38	-255.24	-98.74	-38.61	-18.68	38.80	12.2	17.6	8.1
8000-9000	205.70	209.20	227.50	253.40	260.88	-217.07	-78.95	-33.33	-18.68	53.38	10.3	15.8	8.8
9000-10000	198.80	200.80	213.00	241.10	249.30	-208.85	-70.05	-29.95	-18.68	50.00	7.1	11.4	8.4
10000-11000	192.08	193.70	201.70	228.42	239.40	-203.38	-63.41	-23.30	-18.68	39.97	6.5	10.7	8.4
11000-12000	185.10	188.70	192.10	214.50	227.70	-183.38	-50.00	-23.30	-18.68	23.44	5.2	7.5	8.2
12000-13000	178.80	180.20	184.50	200.80	218.10	-128.98	-39.97	-20.05	-18.68	28.89	3.1	5.0	8.1
13000-14000	172.40	173.70	177.80	190.00	205.61	-103.27	-33.33	-20.05	-18.68	18.68	2.5	4.0	5.1
14000-15000	168.70	167.90	171.20	179.60	195.60	-79.95	-29.95	-19.92	-18.68	6.64	1.1	2.4	2.8
15000-16000	161.30	162.40	165.50	172.20	187.50	-63.29	-23.44	-18.68	-18.68	3.39	0.7	1.3	3.3
16000-17000	158.00	157.10	160.30	165.90	178.20	-57.96	-22.03	-17.98	-15.94	2.45	0.0	0.6	2.8
17000-18000	150.90	152.00	154.80	159.00	170.20	-48.04	-20.00	-18.01	-15.94	-6.02	0.0	0.4	1.2
18000-19000	145.28	146.40	149.20	153.30	162.00	-42.03	-20.00	-18.01	-13.98	-3.98	0.1	0.2	1.8
19000-20000	140.40	141.60	144.00	147.80	154.1	-30.00	-18.04	-18.01	-13.98	-6.02	0.0	0.1	1.0
20000-21000	135.70	137.10	139.40	142.40	148.83	-28.01	-17.98	-15.94	-13.98	-6.02	0.0	0.0	0.6
21000-22000	131.20	132.70	134.90	137.70	143.60	-28.01	-18.01	-13.98	-12.03	-7.97	0.0	0.0	0.7
22000-23000	128.88	128.80	130.70	133.20	139.34	-23.98	-18.01	-13.98	-11.95	-7.97	0.0	0.0	0.9
23000-24000	121.70	123.80	126.20	128.70	133.20	-20.00	-15.84	-13.98	-11.95	-7.97	0.0	0.0	0.4
24000-25000	118.50	119.90	121.80	124.20	127.80	-22.03	-15.84	-13.98	-11.95	-7.97	0.0	0.0	0.4
25000-26000	112.18	116.00	117.90	120.00	122.80	-20.00	-14.08	-12.03	-11.95	-10.00	0.0	0.0	0.7
26000-27000	108.00	112.30	114.00	118.00	118.90	-18.04	-13.98	-12.03	-11.95	-10.00	0.0	0.0	0.4
27000-28000	104.20	108.10	110.00	112.00	114.38	-17.99	-13.98	-12.03	-10.00	-10.00	0.0	0.0	0.2
28000-29000	99.88	104.50	106.20	107.90	109.60	-18.01	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.0
29000-30000	98.30	101.10	102.60	104.40	105.70	-18.01	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.1
30000-31000	92.80	97.80	99.50	101.00	102.10	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
31000-32000	88.40	94.80	98.20	97.70	98.70	-18.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	85.90	90.90	92.60	94.30	95.20	-20.00	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	82.43	87.70	89.10	90.80	91.30	-18.04	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	79.90	85.50	86.60	87.70	88.30	-13.98	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
	NFRQ	10%	50%	90%		10%	50%	90%	10%		50%	90%	10%	50%		90%			
IFC-800	8.8	98	292	390	24.0	98	292	489	98.9	2242	6991	13799	8.9	194	343	489			
100-1000	0.1	295	295	295	0.7	98	59	492	2.3	984	5118	6307	0.1	689	689	689			
100-1500	0.9	197	295	394	1.5	98	541	1083	2.0	128	3986	9898	0.8	98	938	2087			
100-2000	0.8	98	443	591	1.3	98	492	984	1.7	98	884	6983	0.9	98	197	1588			
100-2500	1.0	98	295	788	2.0	98	591	1181	2.0	98	3812	9783	1.4	98	689	1898			
100-3000	0.7	197	295	787	1.3	98	443	1033	3.3	98	2412	9708	1.8	98	443	2087			
100-3500	0.4	197	295	492	1.8	98	443	889	2.9	98	3986	6997	2.1	118	689	1884			
100-4000	0.8	98	246	492	2.4	98	492	1033	3.0	98	637	9880	2.0	98	984	1487			
100-4500	1.8	98	492	728	3.4	98	492	984	2.2	98	1280	4488	1.8	98	591	888			
100-5000	4.8	98	295	591	9.9	98	394	888	9.2	197	2392	30280	3.8	278	591	1893			
100-6000	8.0	197	394	591	13.0	98	394	787	18.7	118	4921	28788	4.8	98	689	1878			
100-7000	10.3	197	394	591	14.0	98	295	787	17.0	423	28183	28672	3.8	98	689	1447			
100-8000	11.8	98	394	492	18.8	98	295	591	20.7	98	8004	27888	7.8	98	689	1270			
100-9000	10.4	98	295	492	14.2	98	295	492	22.2	98	18982	28904	8.8	98	492	1280			
100-10000	8.0	98	295	394	10.9	98	197	492	18.2	197	28280	28918	8.7	98	591	908			
100-11000	7.7	98	295	394	11.3	98	197	394	18.8	98	13818	24938	8.8	98	443	1328			
100-12000	4.0	98	197	394	8.4	98	197	472	11.7	98	20888	23881	8.1	98	591	1083			
100-13000	3.3	98	197	295	8.4	98	197	295	9.8	128	7823	22888	3.8	98	443	1211			
100-14000	2.1	98	197	295	3.8	98	98	394	8.8	394	21188	21882	2.3	148	591	1181			
100-15000	1.0	98	148	295	1.9	197	295	295	8.3	98	20014	20889	2.4	98	492	888			
100-16000	0.8	98	98	197	1.8	98	197	328	4.2	98	9183	19817	3.0	98	394	807			
100-17000	0.0				1.0	131	184	328	2.8	928	18937	18911	1.2	184	394	771			
100-18000	0.1	184	184	184	0.8	184	184	328	1.8	184	17307	17881	1.7	184	492	884			
100-19000	0.1	184	184	184	0.4	184	184	184	2.2	1080	18078	18848	1.8	184	492	722			
100-20000	0.0				0.1	184	184	184	1.8	1088	18288	18818	1.0	184	328	492			

0000Z

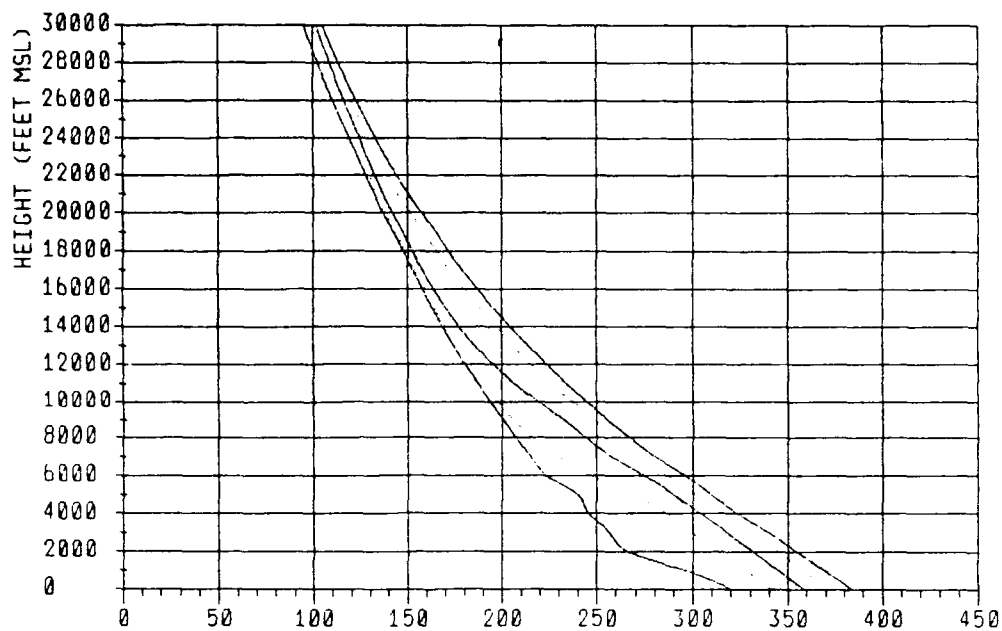
BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
	10%	50%	90%			10%	50%	90%			10%	50%	90%			10%	50%	90%	
8FC-800	2.8	95	292	413	11.7	95	294	489	98.8	2359	6998	38238	15.8	194	390	591			
300-1000	0.2	394	394	394	0.8	98	197	492	2.8	98	4282	34298	0.3	98	98	888			
100-1500	0.1	98	98	98	0.8	98	248	928	1.9	98	4828	10338	1.1	98	591	1870			
500-2000	0.8	98	295	689	1.1	98	197	1102	1.9	98	3199	20913	0.8	98	591	984			
100-2500	0.4	197	295	295	2.1	118	689	1083	1.9	335	3448	7874	0.4	98	248	884			
300-3000	1.1	197	295	850	1.7	98	295	888	2.3	1437	3180	32378	0.4	289	738	2087			
100-3500	0.8	98	492	688	2.1	98	344	1083	2.8	148	4428	28843	0.7	98	295	1878			
500-4000	1.2	98	295	758	1.8	98	394	1220	2.2	98	3843	31810	1.1	128	837	1083			
100-4500	0.8	295	394	787	2.2	98	394	1083	2.7	98	2188	30900	1.0	207	591	874			
500-5000	4.2	98	295	591	8.3	98	394	848	8.0	308	3288	30338	3.4	98	394	1201			
000-8000	7.3	98	394	591	11.8	98	394	787	17.8	148	8088	28888	4.1	98	689	1181			
000-7000	9.2	128	295	591	12.8	98	295	689	18.7	98	28183	28872	8.2	98	591	1378			
000-6000	9.8	187	344	492	14.8	98	295	591	18.9	187	27198	27888	8.0	98	492	1142			
000-9000	8.2	98	295	492	12.8	98	197	492	18.8	98	28118	27002	8.8	98	591	1220			
000-10000	8.0	98	295	492	9.4	98	295	433	14.3	98	28132	28918	8.2	98	492	984			
000-11000	5.8	98	295	394	9.4	98	197	493	17.2	217	24348	24938	8.8	98	591	1348			
000-12000	4.5	98	197	338	8.8	98	197	394	9.8	98	14043	23881	4.3	98	443	1230			
000-13000	2.8	98	197	394	4.3	98	197	318	8.2	98	22179	22888	3.7	98	591	1289			
000-14000	2.3	98	197	295	3.8	98	98	295	8.8	98	20888	21788	2.8	98	394	787			
000-15000	0.8	98	197	295	2.3	98	197	394	3.7	404	20308	20791	1.4	197	443	938			
000-16000	0.7	98	98	295	1.1	98	98	384	3.1	98	19128	18918	2.3	98	492	938			
000-17000	0.0				0.3	98	184	184	3.1	2888	18373	18832	1.8	144	492	1430			
000-18000	0.0				0.4	184	184	184	1.1	478	10891	17888	0.9	184	689	1312			
000-19000	0.1	184	184	184	0.2	184	184	184	1.7	4448	18078	18897	1.8	184	528	888			
000-20000	0.0				0.1	184	184	184	0.8	180	18174	18732	0.7	328	328	492			

1200Z

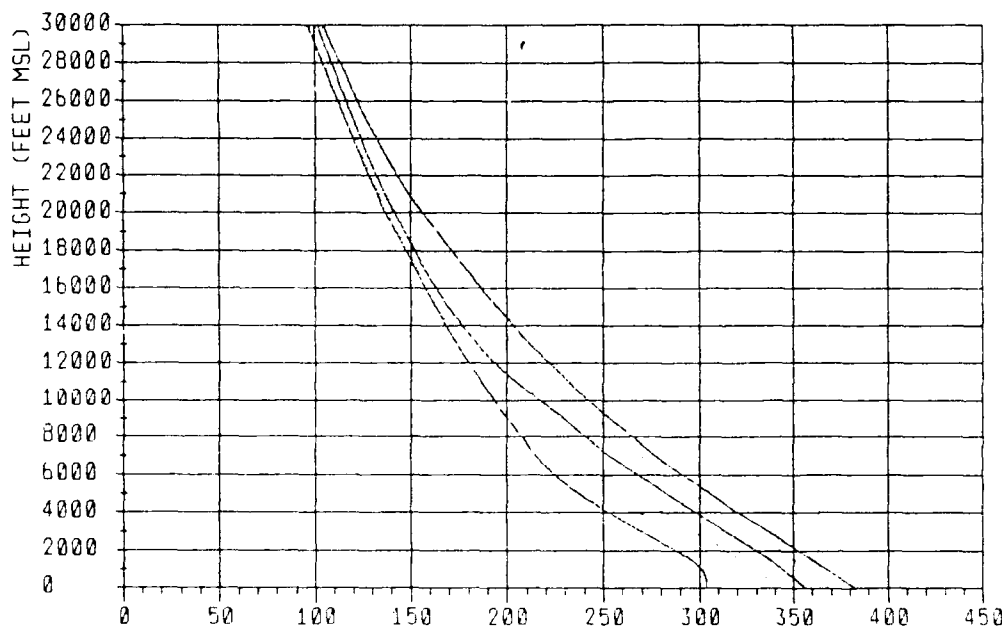
FIGURE B-4-3-D

B-65

N PERCENTILES



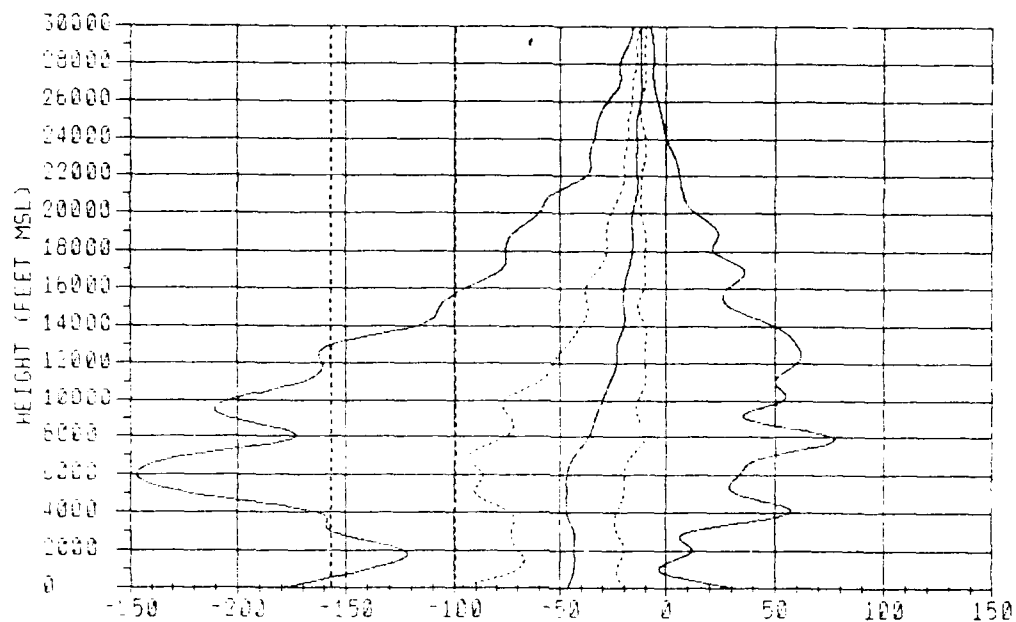
N (N-Units) 0000Z



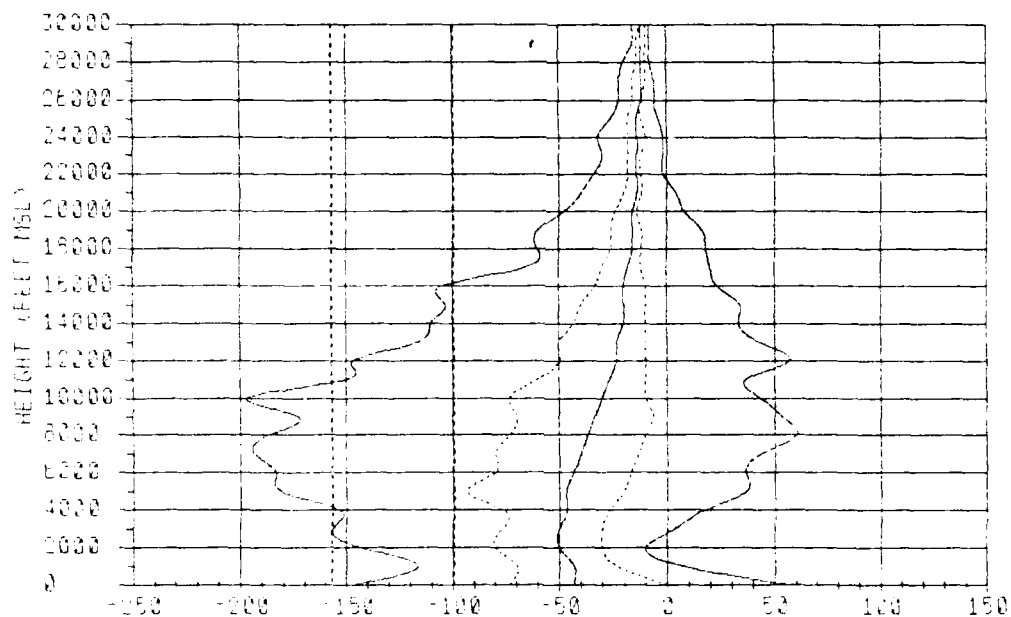
N (N-Units) 1200Z

FIGURE B-4-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-4-4-B

NORMAN MANLEY

DRY-WET TRANSITION

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
500-500	333.18	347.88	364.80	377.87	380.08	-218.88	-127.08	-68.28	-14.88	68.88	10.8	28.8	11.2
500-1000	321.83	336.58	353.50	368.08	376.75	-133.33	-78.00	-43.75	-22.80	2.08	0.7	4.8	1.8
1000-1800	311.48	322.80	340.88	351.38	371.14	-134.88	-72.91	-43.75	-22.81	-2.08	1.0	3.7	1.0
1800-2000	288.28	324.88	341.88	354.88	384.42	-140.88	-70.83	-43.75	-22.81	-2.08	1.3	3.9	1.0
2000-2800	277.01	317.88	335.28	347.78	358.88	-127.08	-68.88	-41.88	-20.83	10.42	0.6	4.2	2.4
2800-3000	278.23	310.78	328.00	340.81	348.87	-125.00	-72.91	-43.75	-20.83	12.50	0.9	4.2	3.3
3000-3800	270.07	303.88	320.78	332.28	340.00	-180.00	-72.91	-43.75	-22.81	11.75	1.5	3.7	3.8
3800-4000	260.87	298.88	314.00	324.78	331.23	-182.88	-72.91	-43.75	-22.81	12.50	1.8	4.0	3.8
4000-4800	254.11	288.32	307.00	317.38	324.04	-188.88	-75.00	-45.83	-22.81	33.33	2.2	4.8	4.3
4800-8000	248.84	282.88	300.08	310.28	316.72	-188.48	-78.18	-45.83	-18.88	71.88	4.4	8.8	9.1
8000-8000	238.70	288.82	288.18	300.18	307.88	-208.33	-88.88	-47.81	-18.75	34.84	7.8	12.8	9.1
8000-7000	223.30	248.00	272.78	285.18	293.08	-247.81	-89.58	-45.83	-18.75	39.58	8.8	18.1	8.5
7000-8000	214.80	228.00	287.00	271.88	279.00	-213.38	-83.38	-41.88	-18.88	80.00	8.8	18.7	9.8
8000-8000	208.20	214.80	242.50	287.88	288.88	-173.30	-78.88	-38.71	-10.03	89.83	7.8	13.7	12.0
8000-10000	198.10	204.20	228.10	248.80	253.10	-188.87	-73.30	-33.33	-13.28	48.74	8.3	11.5	10.2
10000-11000	182.30	185.80	215.30	234.80	242.40	-200.00	-73.30	-28.88	-10.03	80.00	7.8	14.8	15.8
11000-12000	188.20	188.20	203.30	223.10	231.30	-188.24	-88.77	-28.88	-10.03	80.00	8.8	11.7	13.6
12000-13000	178.10	181.40	182.30	212.70	220.78	-138.72	-80.00	-23.30	-10.03	83.38	3.8	9.1	12.9
13000-14000	172.71	174.80	183.30	203.20	211.30	-148.81	-88.81	-20.05	-10.03	88.84	4.8	8.2	12.0
14000-18000	167.00	168.80	178.40	184.20	201.48	-108.84	-38.87	-20.05	-13.28	40.10	2.5	4.7	9.2
18000-18000	161.80	183.20	188.80	185.80	182.80	-108.78	-38.71	-20.05	-13.28	28.88	2.2	4.8	7.8
18000-17000	158.30	187.80	182.20	177.30	184.80	-88.01	-33.33	-18.04	-12.03	30.07	0.8	2.8	8.7
17000-18000	181.20	182.80	188.30	188.20	178.21	-78.01	-30.00	-17.88	-11.88	28.30	0.4	1.8	8.8
18000-18000	148.80	148.80	180.80	181.80	188.25	-78.01	-27.88	-18.01	-10.00	20.00	0.7	2.8	10.4
18000-20000	140.80	141.80	148.20	188.00	181.00	-60.00	-27.88	-18.01	-11.88	17.88	0.1	1.0	7.2
20000-21000	138.80	137.30	140.30	148.73	184.50	-51.88	-23.88	-18.01	-12.03	8.08	0.3	0.4	8.2
21000-22000	131.30	132.80	135.70	142.80	148.20	-47.88	-22.03	-14.08	-11.88	3.88	0.0	0.4	4.2
22000-23000	128.80	128.80	131.30	137.10	142.28	-38.04	-20.00	-13.88	-11.88	3.88	0.0	0.1	4.2
23000-24000	122.00	123.80	128.80	131.80	138.10	-31.88	-18.04	-13.88	-11.88	2.03	0.0	0.0	3.4
24000-28000	117.40	118.80	122.30	128.80	130.40	-32.08	-17.88	-13.88	-11.88	-2.03	0.1	0.0	2.4
28000-28000	113.10	118.80	118.20	121.70	124.80	-30.00	-18.01	-13.88	-11.88	-3.83	0.0	0.0	1.8
28000-27000	108.00	112.10	114.30	117.40	120.10	-33.88	-18.01	-12.03	-11.88	-8.02	0.0	0.0	1.1
27000-28000	104.88	108.00	110.20	112.80	118.50	-20.72	-14.08	-12.03	-10.00	-8.02	0.0	0.3	0.8
28000-28000	100.80	104.40	108.30	108.40	110.30	-18.04	-13.88	-12.03	-10.00	-8.02	0.0	0.0	0.8
28000-30000	98.78	101.00	102.80	104.83	108.30	-17.88	-13.88	-11.88	-10.00	-7.87	0.0	0.0	2.2
30000-31000	93.20	97.80	98.40	101.10	102.50	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
31000-32000	89.80	94.80	98.10	97.70	98.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
32000-33000	88.40	90.80	92.80	94.20	98.30	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	82.80	87.70	88.10	80.80	81.30	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	80.20	88.80	88.80	87.80	88.20	-20.00	-10.00	-10.00	-7.87	-7.87	0.0	0.0	0.0

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
500-500	324.88	347.88	380.80	374.88	388.87	-172.83	-92.87	-43.78	8.33	85.42	3.8	13.1	23.2
500-1000	308.30	341.81	354.44	368.50	378.71	-100.00	-82.80	-41.88	-10.42	33.33	0.3	1.3	8.8
1000-1500	308.40	338.80	348.38	360.87	371.00	-108.28	-68.88	-43.75	-18.78	12.80	0.3	2.2	4.2
1500-2000	302.80	328.18	341.78	354.18	363.80	-137.50	-72.91	-48.83	-28.00	0.00	1.2	3.3	1.8
2000-2800	288.81	318.88	334.38	348.08	358.88	-145.83	-78.18	-47.81	-28.18	-10.42	1.8	4.6	0.8
2800-3000	288.38	310.88	328.08	337.88	345.88	-138.88	-78.18	-50.00	-31.25	-2.08	1.2	4.5	1.8
3000-3800	278.01	301.80	317.88	328.00	337.88	-138.38	-77.08	-50.00	-33.33	0.00	1.3	4.0	1.8
3800-4000	268.48	283.88	308.38	321.18	328.00	-164.88	-77.08	-50.00	-28.87	8.28	2.8	4.6	1.8
4000-4800	258.88	288.00	301.38	313.28	321.38	-181.50	-77.08	-47.81	-28.18	10.42	1.8	5.3	2.8
4800-8000	250.50	278.18	283.88	308.18	314.78	-183.33	-83.33	-48.83	-28.00	33.33	4.7	12.1	8.8
8000-8000	238.80	281.80	281.78	288.88	304.88	-178.18	-88.87	-47.81	-18.82	33.33	8.2	18.8	7.8
8000-7000	224.40	243.20	288.88	281.38	280.24	-183.18	-78.18	-43.75	-18.88	42.08	8.8	10.3	9.4
7000-8000	214.40	228.20	282.80	288.38	278.38	-193.88	-81.25	-38.88	-10.42	43.11	7.0	13.3	11.8
8000-8000	208.20	214.80	238.70	288.70	283.78	-180.07	-73.43	-38.88	-10.03	60.02	8.8	13.2	13.8
8000-10000	198.00	204.20	228.20	242.80	250.88	-170.08	-68.82	-33.33	-8.84	53.38	8.8	11.0	13.8
10000-11000	182.02	185.70	213.80	232.80	238.78	-188.08	-73.30	-28.88	-10.03	42.70	8.3	12.8	13.8
11000-12000	188.00	188.20	201.40	221.20	228.20	-148.85	-88.84	-28.88	-13.28	38.71	5.1	8.7	10.7
12000-13000	178.80	181.40	181.40	210.80	218.20	-138.87	-80.00	-23.30	-10.03	53.28	3.8	7.0	11.1
13000-14000	172.80	174.80	182.80	201.17	208.70	-113.41	-88.81	-23.30	-13.28	38.87	2.8	5.4	11.0
14000-18000	168.82	168.80	175.00	181.40	200.80	-118.88	-38.87	-20.05	-10.03	33.33	2.8	4.7	11.8
18000-18000	161.40	183.10	188.10	182.88	182.20	-100.00	-38.71	-20.05	-13.28	33.33	2.2	3.7	10.3
18000-17000	158.10	187.70	181.80	174.40	184.82	-88.81	-31.88	-17.88	-12.03	17.87	0.8	2.8	7.8
17000-18000	181.00	182.40	188.00	188.00	188.00	-83.88	-27.88	-17.88	-11.88	18.01	0.1	1.0	7.3
18000-18000	148.30	148.70	180.80	188.00	188.00	-60.00	-28.01	-18.01	-11.88	18.01	0.6	1.2	8.7
18000-20000	140.40	141.70	144.80	151.88	180.70	-54.41	-24.08	-18.01	-13.88	18.01	0.0	0.4	4.7
20000-21000	135.70	137.20	140.10	148.40	153.72	-42.32	-22.03	-18.01	-13.88	2.03	0.1	0.1	3.8
21000-22000	131.20	132.80	135.80	140.80	147.30	-38.01	-20.00	-14.08	-12.03	1.88	0.0	0.0	2.8
22000-23000	128.82	128.80	131.10	135.80	141.80	-31.88	-18.04	-13.88	-11.88	-1.88	0.0	0.0	2.2
23000-24000	122.10	123.80	128.80	130.80	138.70	-30.00	-17.88	-13.88	-11.88	-2.03	0.0	0.0	1.8
24000-28000	117.88	118.70	122.20	128.80	128.80	-30.00	-17.88	-13.88	-11.88	-2.03	0.0	0.1	2.2
28000-28000	113.10	118.80	118.10	121.20	124.48	-28.87	-18.01	-13.88	-11.88	-7.84	0.0	0.0	0.8
28000-27000	108.88	112.10	114.20	117.00	118.80	-22.03	-18.84	-12.03	-11.88	-8.02	0.0	0.0	0.3
27000-28000	108.38	108.00	110.20	112.80	118.27	-20.00	-14.08	-12.03	-10.00	-7.87	0.0	0.0	0.3
28000-28000	101.08	104.40	108.20	108.20	110.20	-17.88	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.1
28000-30000	97.40	101.00	102.80	104.80	108.10	-18.01	-13.88	-11.88	-10.00	-8.01	0.0	0.0	0.1
30000-31000	93.70	97.70	98.40	101.10	102.30	-18.87	-12.03	-10.00	-10.00	-7.87	0.1	0.0	0.3
31000-32000	89.30	94.80	98.00	97.70	98.70	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
32000-33000	88.70	90.80	92.80	94.20	98.20	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	83.10	87.70	88.10	80.80	81.20	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	80.88	85.80	88.80	87.40	88.00	-18.04	-10.00	-10.00	-8.05	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

SE MIL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
500	10.6	95	292	390	20.8	98	292	394	97.8	1918	7085	27740	11.2	292	292	392
1000	0.1	394	394	394	1.5	98	443	1339	5.1	98	3248	12875	0.9	98	98	689
1500	0.8	197	344	492	2.2	98	640	1211	1.8	591	8880	33892	0.3	98	837	1878
2000	1.0	197	295	591	1.8	98	394	1142	2.8	98	4183	19838	0.7	98	938	1989
2500	0.3	295	344	394	2.5	98	492	1102	2.7	98	3543	33016	1.6	187	1083	1878
3000	0.9	98	295	689	2.5	98	197	1102	2.7	98	3248	17313	1.3	98	295	1398
3500	1.2	98	443	787	2.4	98	641	1132	3.4	98	3081	31923	1.8	98	689	1478
4000	0.9	295	443	888	1.9	98	492	1083	3.6	98	1772	12402	1.9	98	689	1289
4500	1.6	118	194	748	2.4	98	492	888	3.3	98	689	4078	2.1	98	591	2008
5000	3.4	98	295	748	7.0	98	295	787	8.2	295	4330	30250	5.8	197	492	984
6000	5.4	187	344	689	8.5	98	394	837	10.2	187	2884	28881	4.8	98	640	1427
7000	7.3	197	394	689	12.3	98	344	787	12.8	98	3543	28724	5.3	98	689	1289
8000	8.1	98	295	591	12.1	98	295	787	18.9	98	4085	27790	5.8	228	689	1844
9000	8.9	98	295	394	11.1	98	295	591	16.4	98	2883	28677	8.0	108	591	1289
10000	4.6	98	295	492	9.2	98	197	591	15.4	98	1280	28801	8.0	98	394	984
11000	7.2	98	295	394	13.3	98	197	492	23.0	98	3445	24873	11.0	98	591	1398
12000	4.8	98	295	394	10.2	98	197	394	18.1	98	2808	23708	8.0	98	492	1398
13000	3.2	98	197	394	7.2	98	197	394	13.5	98	4134	22770	7.3	187	591	1083
14000	4.5	98	197	295	7.0	98	197	354	14.2	98	4424	21785	7.8	187	591	1181
15000	2.3	98	197	228	4.4	98	197	295	10.7	98	4808	20801	4.7	98	394	1083
16000	1.9	98	197	295	4.7	98	98	197	8.8	98	4858	19718	5.7	98	591	1178
17000	0.7	98	184	230	2.1	115	184	328	8.2	387	9008	18832	6.3	230	607	1312
18000	0.7	184	184	184	1.8	184	184	328	7.3	394	4787	17717	5.9	184	492	984
19000	0.7	184	184	184	2.5	184	184	184	10.9	658	15812	18766	6.6	184	492	820
20000	0.1	184	184	184	1.0	184	184	184	8.4	394	6388	18489	4.3	184	492	1132

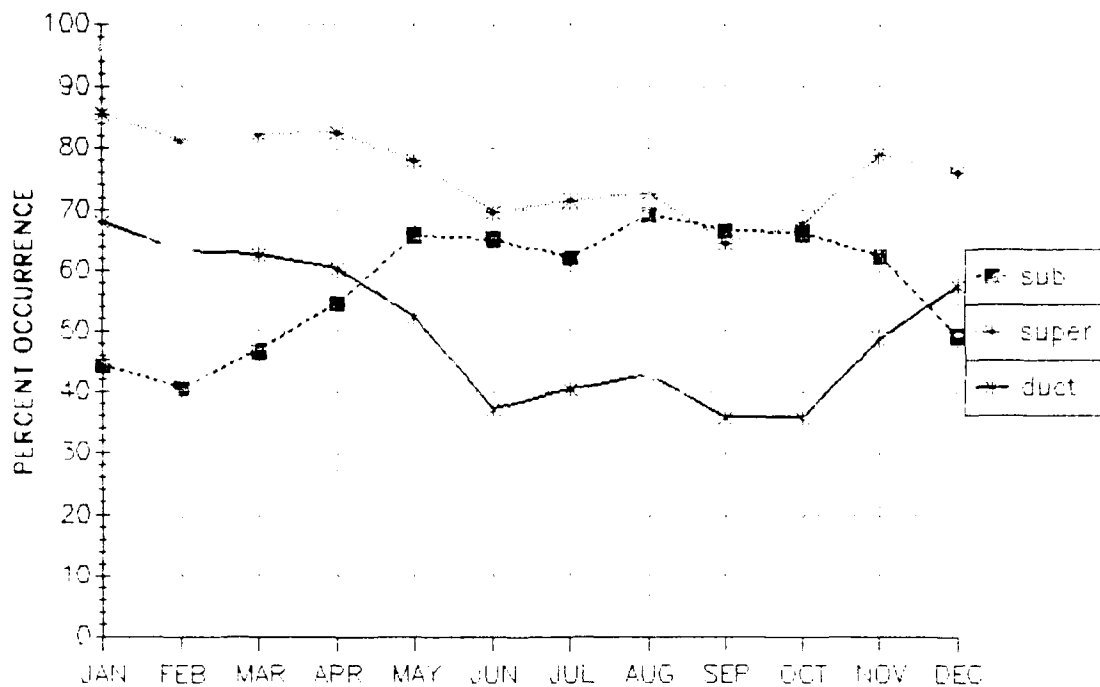
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E SL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
30	3.9	95	292	390	13.1	98	292	390	96.7	687	6938	34928	23.2	98	390	983
300	0.0	98	295	394	0.9	98	248	1083	4.3	98	2804	24889	1.3	98	197	1201
500	0.3	98	148	197	1.6	98	344	1033	4.8	541	8102	34080	0.3	98	443	787
300	1.2	295	295	591	2.1	98	591	985	3.0	1844	4872	10394	0.3	98	98	98
500	1.2	197	344	689	2.7	98	443	1014	2.2	98	2707	21748	0.6	98	98	689
300	0.6	295	394	394	2.8	98	92	1181	4.9	98	3484	32248	1.3	98	295	985
500	1.2	98	344	689	2.2	98	492	1181	2.8	197	2858	31808	0.7	591	888	1478
300	1.8	98	295	591	2.6	98	295	1083	3.4	98	2853	27021	1.0	197	1083	1289
500	1.3	197	394	689	3.7	98	394	1083	3.6	98	1478	30840	1.8	197	492	1122
300	4.1	98	295	502	9.6	98	295	827	6.6	433	3445	30349	3.8	187	394	888
300	3.8	98	394	522	8.9	98	394	848	17.9	98	3297	28808	4.6	98	591	1220
300	5.4	98	295	492	7.8	98	184	787	12.2	98	2185	28478	6.9	98	689	1112
300	6.5	98	295	492	10.1	98	344	689	16.7	98	2858	27790	6.7	98	591	1836
300	5.4	98	295	394	10.7	98	295	571	17.7	98	2215	28808	9.7	98	394	1378
3000	5.0	98	197	394	9.7	98	197	492	15.7	98	2067	25743	8.4	98	443	938
1000	5.8	98	295	394	11.6	98	197	394	22.4	197	4134	24838	7.8	98	492	1488
2000	4.8	98	197	295	7.8	98	197	394	13.0	98	3248	23754	7.8	98	492	1182
3000	3.2	98	197	295	6.2	98	197	394	13.3	98	4134	22770	7.2	98	492	1289
4000	2.3	98	98	295	5.0	98	197	394	11.6	98	5200	21884	7.7	98	492	689
5000	2.8	98	197	295	4.8	98	98	295	10.0	98	5184	20732	6.5	98	492	1132
8000	2.1	98	148	248	3.4	98	98	278	9.7	98	3347	18817	6.0	98	528	820
7000	0.7	98	131	184	2.3	131	184	305	7.8	591	8202	18831	4.3	184	658	1148
8000	0.1	184	184	184	1.0	184	184	328	6.2	184	17081	17717	6.1	184	492	1033
9000	0.6	184	184	184	1.2	184	184	328	6.4	708	18078	18717	6.6	184	328	689
3000	0.0	184	184	184	0.4	184	184	184	4.3	820	14928	18748	3.8	184	492	820

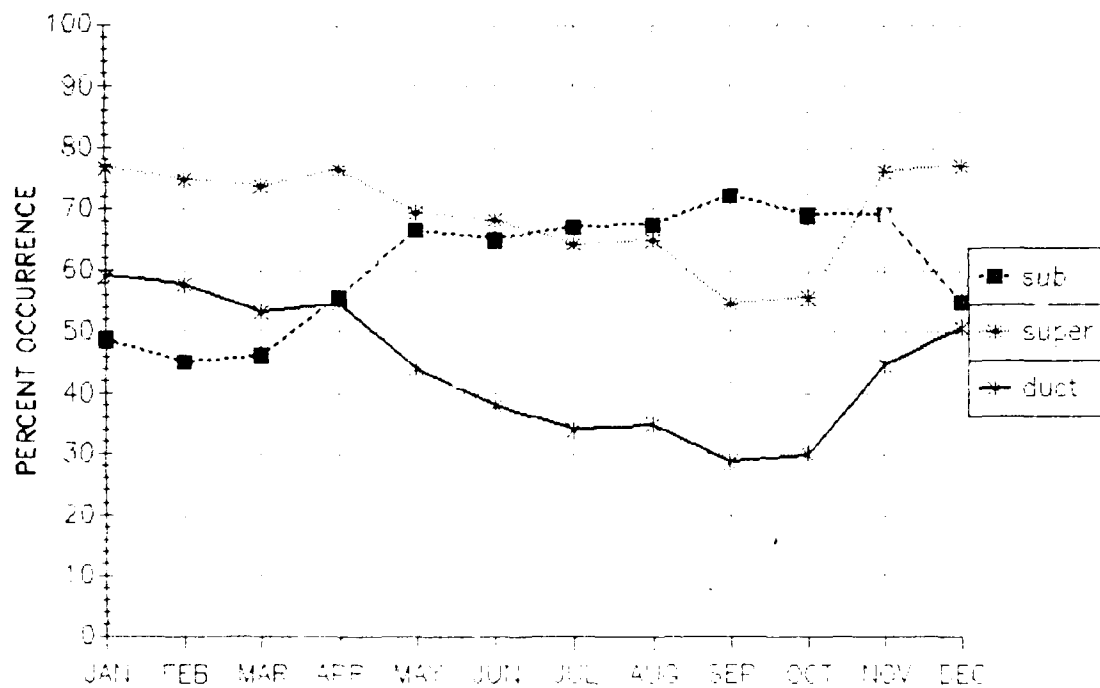
1200Z

FIGURE B-4-4-D

AP PERCENT OCCURRENCE FREQUENCY



0000Z

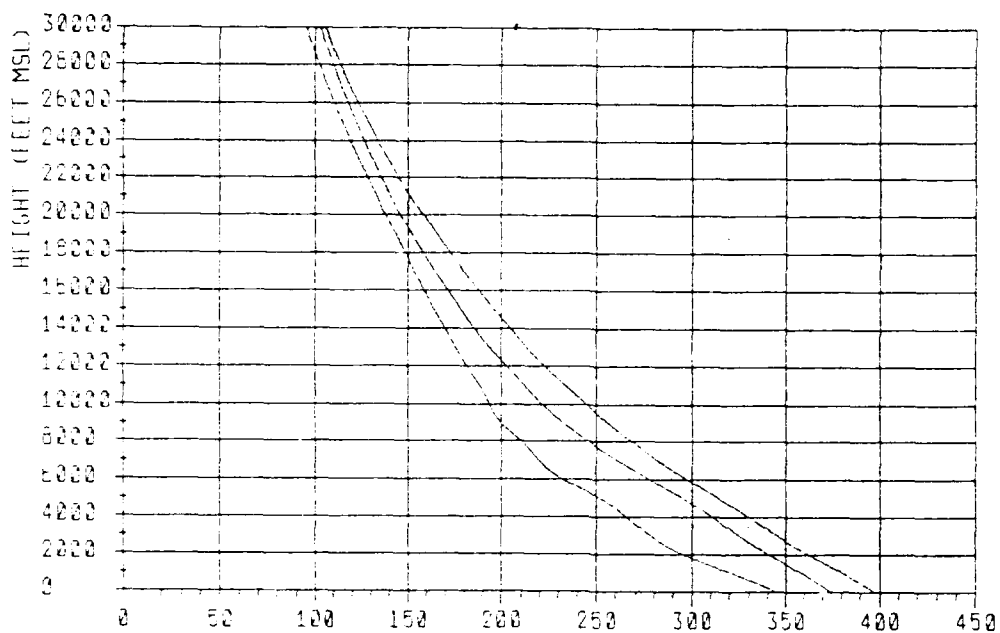


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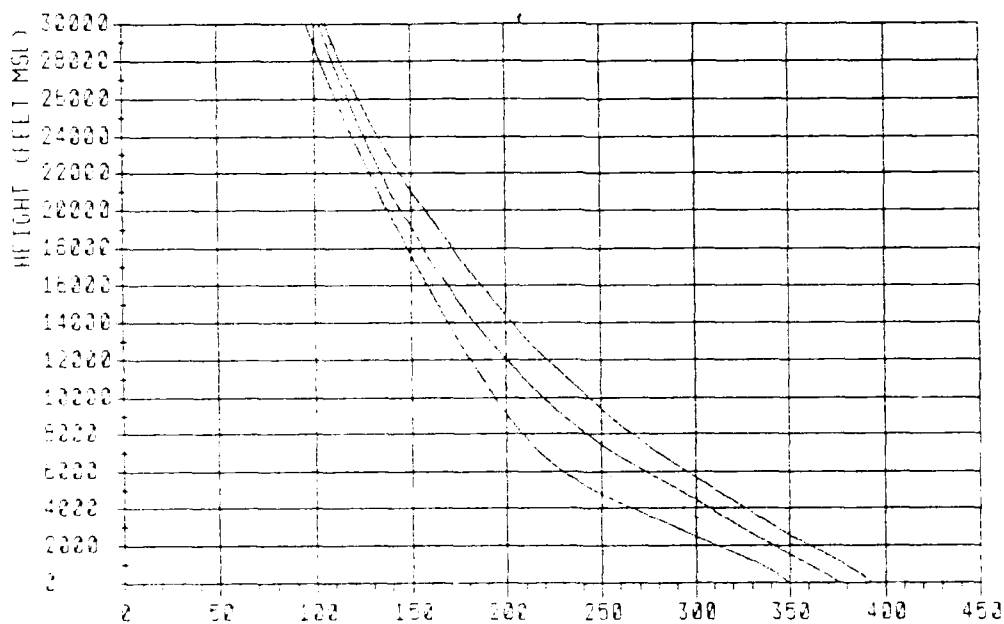
FIGURE B-4-5

B-70

N PERCENTILES



N (N-Units) 0000Z



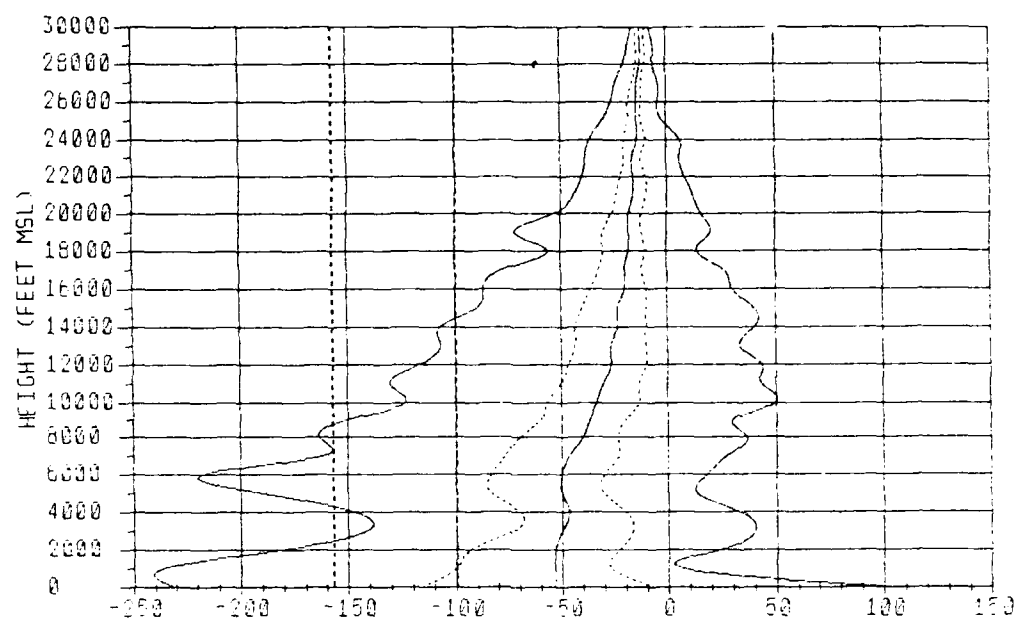
N (N-Units) 1200Z

FIGURE B-5-1-A

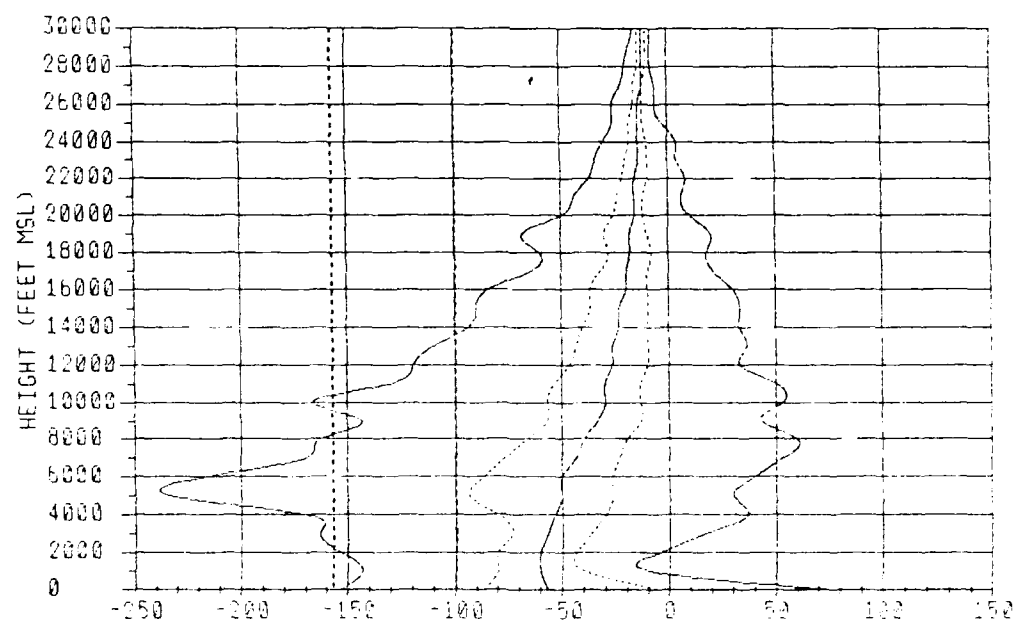
SANTO DOMINGO

WET SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-5-1-B

B-72

SANTO DOMINGO

WET SEASON

EQT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SKLR	SUR
5FC-500	352.62	367.69	378.75	391.75	400.82	-271.29	-192.09	-98.33	18.53	139.58	18.2	30.7	23.2
500-1000	338.70	359.19	371.08	382.25	391.49	-158.25	-79.18	-50.00	-18.75	37.50	1.9	6.2	6.3
1000-1500	328.28	350.40	363.80	374.69	382.75	-187.80	-93.75	-52.08	-27.08	4.17	4.7	10.0	2.0
1500-2000	306.39	340.00	354.98	368.18	374.50	-258.10	-108.33	-58.28	-30.07	8.29	7.0	13.5	2.1
2000-2500	289.37	328.08	345.38	357.00	364.08	-193.75	-100.00	-58.28	-27.08	22.91	3.9	11.9	3.3
2500-3000	282.38	316.69	336.19	347.80	354.69	-188.68	-82.33	-52.08	-22.91	25.00	2.6	8.1	4.7
3000-3500	273.75	311.37	327.69	339.38	345.58	-147.91	-75.00	-50.00	-18.75	45.42	1.8	3.8	5.3
3500-4000	287.27	300.89	320.25	323.38	330.50	-129.18	-70.83	-50.00	-18.75	39.58	1.4	3.2	6.3
4000-4500	284.51	297.08	313.58	323.38	330.50	-143.75	-70.83	-50.00	-20.83	25.00	1.6	4.8	3.8
4500-5000	260.32	289.25	308.69	315.75	322.58	-179.18	-73.98	-50.00	-22.91	33.33	3.3	8.6	4.8
5000-6000	244.40	273.37	293.25	303.08	312.88	-190.41	-83.33	-50.00	-31.25	10.42	8.8	11.0	4.0
6000-7000	222.04	275.68	288.08	295.38	305.38	-212.08	-85.41	-50.00	-28.18	20.83	8.3	14.8	4.6
7000-8000	211.94	237.20	259.75	273.50	280.88	-183.41	-78.89	-43.75	-23.30	26.69	4.1	10.5	5.8
8000-9000	204.40	238.20	244.30	259.58	267.08	-158.64	-68.68	-39.87	-23.30	38.59	4.9	10.1	7.7
9000-10000	198.44	214.50	230.40	248.00	253.80	-143.38	-58.64	-38.59	-18.82	38.59	3.4	8.9	8.9
10000-11000	191.03	205.10	219.50	234.50	242.80	-128.68	-58.64	-30.07	-18.66	50.00	2.8	8.8	11.5
11000-12000	195.90	194.80	209.30	223.50	230.80	-128.95	-46.74	-26.69	-13.28	46.81	2.3	8.1	12.2
12000-13000	180.00	188.20	200.40	213.80	220.20	-115.72	-46.81	-26.69	-13.28	42.32	2.3	4.8	11.4
13000-14000	173.50	178.60	191.70	204.80	211.20	-113.28	-43.38	-23.44	-10.03	39.87	1.8	4.8	11.7
14000-15000	167.60	171.80	183.30	198.10	201.80	-103.38	-43.23	-23.30	-10.03	43.38	1.8	4.4	12.6
15000-16000	162.20	168.40	178.10	187.90	193.80	-90.08	-36.71	-23.30	-13.28	33.33	0.9	3.8	11.2
16000-17000	158.60	160.00	168.60	180.80	188.27	-80.08	-33.98	-20.08	-12.03	32.52	0.8	2.4	9.8
17000-18000	151.80	154.28	162.30	172.60	177.60	-70.00	-31.88	-20.00	-11.95	23.98	0.3	1.8	7.7
18000-19000	145.90	148.60	155.60	165.40	170.30	-68.49	-30.00	-18.04	-10.00	16.04	1.5	1.7	11.2
19000-20000	140.70	143.10	149.30	157.90	162.50	-60.00	-28.04	-17.98	-12.03	17.98	0.3	0.8	8.1
20000-21000	135.60	138.50	143.80	151.30	155.60	-51.98	-25.93	-16.01	-11.95	12.03	0.2	0.2	6.8
21000-22000	130.75	134.00	138.60	145.30	149.10	-42.03	-23.98	-18.01	-10.00	10.00	0.1	0.2	7.8
22000-23000	128.03	129.60	133.80	139.70	143.00	-40.00	-21.95	-18.01	-10.00	8.02	0.0	0.3	6.3
23000-24000	120.80	124.80	128.90	133.90	137.20	-38.01	-20.00	-14.08	-10.00	3.88	0.0	0.2	5.2
24000-25000	116.20	120.70	124.20	128.40	130.90	-33.98	-20.00	-13.98	-10.00	3.88	0.0	0.2	5.4
25000-26000	111.90	118.70	119.80	123.40	125.60	-27.98	-17.98	-13.98	-11.95	-1.95	0.0	0.0	2.7
26000-27000	107.80	112.90	115.70	118.70	120.70	-23.98	-16.01	-13.98	-11.95	-3.98	0.0	0.0	1.8
27000-28000	103.40	108.70	111.30	114.10	115.90	-22.03	-16.01	-12.03	-10.00	-6.02	0.0	0.0	1.2
28000-29000	98.38	105.10	107.20	109.40	110.80	-18.04	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.8
29000-30000	95.80	101.80	103.60	105.60	108.70	-16.01	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.3
30000-31000	92.30	98.30	100.10	101.90	102.90	-18.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.1
31000-32000	88.90	94.90	96.80	98.40	99.30	-33.98	-12.03	-11.95	-10.00	-6.02	0.0	0.0	0.2
32000-33000	85.30	91.40	93.10	94.80	95.72	-22.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	82.10	88.20	89.60	91.00	91.80	-26.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	79.74	86.00	88.90	87.90	88.50	-25.93	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

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EQT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SKLR	SUR
5FC-500	355.25	371.87	381.19	388.75	397.17	-177.02	-99.26	-45.83	22.91	110.40	3.9	14.8	28.0
500-1000	337.81	363.00	373.00	381.75	389.88	-128.00	-81.25	-58.33	-31.25	18.75	1.0	4.2	4.1
1000-1500	308.82	353.75	364.08	373.38	381.49	-132.87	-79.18	-60.41	-39.58	-10.42	1.2	3.8	1.1
1500-2000	308.73	344.25	355.25	364.19	372.08	-158.25	-79.18	-60.41	-43.75	-10.42	2.0	5.9	1.2
2000-2500	310.77	334.25	348.00	354.88	362.74	-150.00	-81.25	-60.41	-43.75	-8.28	1.8	5.0	1.2
2500-3000	298.73	323.69	336.19	345.88	353.08	-154.18	-79.18	-58.28	-39.58	2.08	2.3	5.4	1.9
3000-3500	288.26	313.75	326.75	338.69	342.89	-153.91	-75.00	-58.28	-35.41	20.83	2.1	3.8	3.8
3500-4000	268.13	304.58	318.69	327.58	334.38	-172.91	-72.91	-58.18	-33.33	20.83	2.6	4.3	4.0
4000-4500	264.38	288.25	310.89	319.80	328.67	-158.33	-77.08	-52.08	-28.18	29.18	2.8	6.8	4.8
4500-5000	255.95	287.57	302.72	311.75	318.19	-198.60	-65.41	-50.00	-27.08	60.41	4.8	9.9	8.0
5000-6000	228.74	269.25	289.08	301.19	309.00	-225.98	-93.75	-60.00	-26.69	31.25	10.7	18.8	7.5
6000-7000	219.57	247.70	271.88	288.08	292.75	-208.40	-83.33	-47.91	-26.69	38.59	7.8	13.6	7.7
7000-8000	211.97	233.80	255.50	270.38	278.71	-189.92	-76.69	-43.75	-23.30	58.38	5.4	10.4	8.8
8000-9000	204.20	222.80	240.50	258.00	265.00	-180.02	-68.68	-39.87	-18.68	53.33	4.8	10.7	11.3
9000-10000	187.57	212.80	227.70	243.00	251.70	-139.87	-58.64	-33.33	-13.28	46.81	3.9	7.0	12.5
10000-11000	181.05	204.00	217.20	231.70	241.50	-158.77	-58.64	-30.07	-13.28	46.81	5.1	8.4	13.0
11000-12000	185.40	193.80	207.20	221.00	229.70	-129.85	-50.00	-26.69	-13.28	46.81	3.1	6.7	10.7
12000-13000	178.40	184.90	198.10	211.38	219.45	-109.88	-46.81	-26.69	-10.03	38.71	1.8	4.8	12.4
13000-14000	173.10	177.70	189.80	202.70	210.00	-108.77	-43.38	-26.69	-10.03	23.33	1.9	5.8	12.3
14000-15000	167.40	170.80	181.20	194.10	200.90	-88.98	-39.87	-23.30	-10.03	28.98	1.0	2.7	8.9
15000-16000	161.90	165.00	173.80	186.00	192.80	-88.98	-38.59	-20.08	-10.03	33.33	0.8	3.3	10.8
16000-17000	158.60	159.40	167.10	178.80	185.30	-78.88	-38.01	-20.02	-11.20	23.98	0.8	1.7	10.0
17000-18000	151.40	153.80	160.40	170.70	177.20	-62.03	-31.95	-20.00	-10.00	22.03	0.1	0.7	8.8
18000-19000	145.80	148.10	154.20	163.40	169.80	-70.00	-28.04	-17.98	-7.97	20.07	1.5	1.8	12.6
19000-20000	140.80	143.00	148.10	158.30	161.80	-53.41	-27.98	-17.98	-11.95	10.00	0.1	0.3	6.0
20000-21000	135.72	138.20	142.70	150.00	154.90	-47.98	-24.08	-18.01	-11.95	8.03	0.2	0.2	6.5
21000-22000	130.80	133.70	137.70	143.80	148.59	-38.04	-22.03	-18.01	-11.95	7.97	0.0	0.0	5.7
22000-23000	126.08	129.40	133.10	138.80	142.50	-37.98	-21.95	-14.08	-11.95	6.02	0.2	0.0	5.5
23000-24000	121.00	124.70	128.20	133.00	136.40	-32.03	-20.00	-13.98	-10.00	3.03	0.0	0.0	5.1
24000-25000	116.22	120.90	123.80	127.80	130.50	-30.00	-20.00	-13.98	-11.95	3.03	0.0	0.2	4.2
25000-26000	112.10	116.80	119.30	122.70	125.30	-28.01	-17.98	-13.98	-11.95	-3.98	0.0	0.1	1.8
26000-27000	108.00	112.70	115.20	118.10	120.30	-23.98	-16.01	-13.98	-11.95	-6.02	0.0	0.0	0.9
27000-28000	103.50	108.50	111.00	113.60	115.80	-20.00	-14.08	-12.03	-10.00	-7.97	0.0	0.0	0.8
28000-29000	98.60	104.90	107.00	109.10	110.70	-18.04	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.6
29000-30000	95.80	101.80	103.40	105.30	106.70	-16.01	-13.98	-11.95	-10.00	-8.05	0.0	0.0	0.1
30000-31000	92.40	98.20	99.90	101.70	102.80	-14.08	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.2
31000-32000	89.01	94.90	96.50	98.20	99.20	-27.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
32000-33000	85.50	91.30	93.00	94.70	95.70	-21.95	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.1
33000-34000	82.20	88.10	89.80	90.90	91.70	-24.08	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	78.80	85.90	86.90	87.60	88.40	-22.03	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	BRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	14.2	151	348	446	30.7	98	295	449	95.7	492	5708	34877	23.2	249	348	545
500-1000	1.2	157	295	965	3.2	98	591	1161	8.0	98	5807	34286	1.4	98	98	689
1000-1500	3.8	98	295	492	7.3	98	492	1319	5.1	98	4330	33794	0.8	98	148	1398
1500-2000	4.5	98	295	689	8.0	98	492	984	6.4	295	5463	33597	1.4	197	984	2018
2000-2500	1.4	147	394	846	4.6	98	591	1024	7.8	138	4626	14876	1.9	295	637	1673
2500-3000	1.4	244	295	689	2.9	98	146	591	8.2	256	3347	21070	2.3	295	787	1693
3000-3500	1.2	128	295	394	2.2	98	295	945	5.4	98	3150	16831	2.9	98	591	1575
3500-4000	1.0	197	344	856	2.0	98	98	846	5.0	98	3002	23524	1.3	98	295	886
4000-4500	1.0	118	295	492	3.4	98	394	787	4.2	492	3248	17395	1.9	118	492	886
4500-5000	2.7	177	295	650	3.3	98	197	837	5.8	207	5856	30250	2.7	98	295	492
5000-6000	5.4	98	344	591	9.8	98	394	886	15.9	689	6791	27685	3.0	98	394	748
6000-7000	6.5	98	295	512	11.5	98	295	886	13.7	98	3937	28774	4.0	98	394	984
7000-8000	3.2	138	295	492	7.0	98	295	650	12.5	197	4429	27691	4.4	197	541	1004
8000-9000	4.4	98	197	492	8.2	98	295	689	12.1	98	3150	26510	5.1	98	394	1339
9000-10000	2.7	98	295	394	4.9	98	295	541	10.3	98	2756	25526	6.6	128	394	984
10000-11000	2.4	98	197	335	5.7	98	197	492	14.4	98	3248	24521	7.1	98	394	1181
11000-12000	2.1	98	295	443	5.3	98	197	394	12.2	98	1919	23370	9.9	98	394	1004
12000-13000	2.2	98	197	354	4.4	98	197	295	11.7	98	3445	22573	7.0	197	394	1240
13000-14000	1.6	98	197	295	4.5	98	197	394	11.1	98	2789	21490	8.5	98	394	787
14000-15000	1.7	98	98	197	4.0	98	197	295	12.1	98	3248	20703	9.8	98	394	886
15000-16000	0.9	98	98	197	3.1	98	98	295	11.2	98	4036	19640	7.8	98	394	886
16000-17000	0.6	98	146	164	2.2	115	164	312	8.9	551	4593	18714	6.5	223	492	820
17000-18000	0.3	164	164	164	1.5	164	164	230	8.3	1312	12796	17881	5.8	328	328	820
18000-19000	1.5	164	164	164	1.7	164	164	180	11.2	558	15912	16667	9.8	164	328	755
19000-20000	0.3	164	164	164	0.6	164	164	328	7.5	1476	15092	15748	6.0	164	328	656

0000Z

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	BRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	3.9	64	249	436	14.9	98	348	492	98.2	596	6155	35073	29.0	197	348	446
500-1000	0.5	197	295	394	1.9	98	295	1270	5.9	98	4134	34365	0.6	98	295	797
1000-1500	1.0	98	344	679	2.4	98	541	974	2.8	689	8661	34089	0.4	98	541	591
1500-2000	1.5	98	295	915	3.8	98	492	965	3.4	197	3347	33341	0.8	98	640	2362
2000-2500	1.2	98	295	669	2.2	98	492	1240	3.8	423	3199	20328	0.7	98	295	1181
2500-3000	1.7	197	295	620	3.4	98	295	1083	3.2	98	2165	16683	1.2	325	689	1821
3000-3500	1.2	226	394	827	1.9	98	197	1043	3.7	98	1969	10197	2.2	98	394	1004
3500-4000	1.7	98	394	886	2.5	98	394	1004	4.8	98	1476	14705	2.4	98	492	1083
4000-4500	1.4	98	295	591	4.7	98	344	876	4.9	98	1378	12402	2.5	295	591	1073
4500-5000	3.7	98	295	591	6.9	98	295	787	9.0	98	2953	29712	3.5	98	295	591
5000-6000	9.4	98	295	591	13.7	98	295	886	22.0	98	4626	29344	6.0	98	394	886
6000-7000	5.7	197	295	394	10.4	98	295	689	16.7	138	2347	28577	5.8	197	394	984
7000-8000	4.3	98	295	492	8.6	98	295	689	13.1	98	2953	27592	6.5	98	394	984
8000-9000	4.4	98	246	394	8.0	98	295	591	15.2	98	2165	26313	8.5	187	394	1378
9000-10000	3.0	98	197	394	5.8	98	197	394	11.8	98	2658	25624	8.4	98	394	984
10000-11000	4.3	98	197	295	7.8	98	197	394	16.3	98	2805	24768	7.0	98	394	886
11000-12000	2.7	98	197	295	5.6	98	197	394	11.8	98	2593	23705	8.3	197	394	1067
12000-13000	1.4	98	197	335	4.0	98	197	335	11.8	98	3445	22632	9.0	98	394	886
13000-14000	1.9	98	146	295	5.1	98	197	394	12.8	98	4248	21687	8.4	98	394	807
14000-15000	0.9	98	146	295	2.4	98	98	295	9.2	394	3937	20703	6.3	197	394	1083
15000-16000	0.7	98	197	295	2.8	98	98	295	9.6	98	3215	19561	7.4	98	394	823
16000-17000	0.8	131	164	164	1.7	164	164	295	9.0	656	7218	18701	7.2	164	459	827
17000-18000	0.1	164	164	164	0.7	164	164	328	7.3	656	17061	17881	6.5	164	492	984
18000-19000	1.3	164	164	164	1.8	164	164	328	13.2	820	15912	16635	10.3	164	328	820
19000-20000	0.1	164	164	164	0.3	164	164	164	6.3	1099	15092	15748	4.8	164	328	656

1200Z

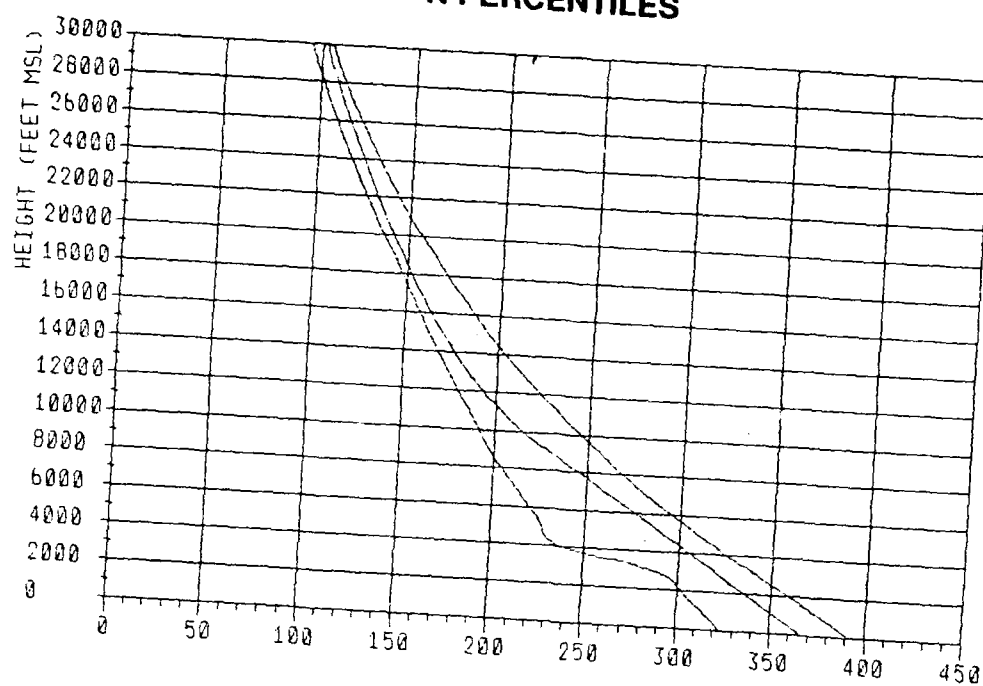
FIGURE B-5-1-D

B-74

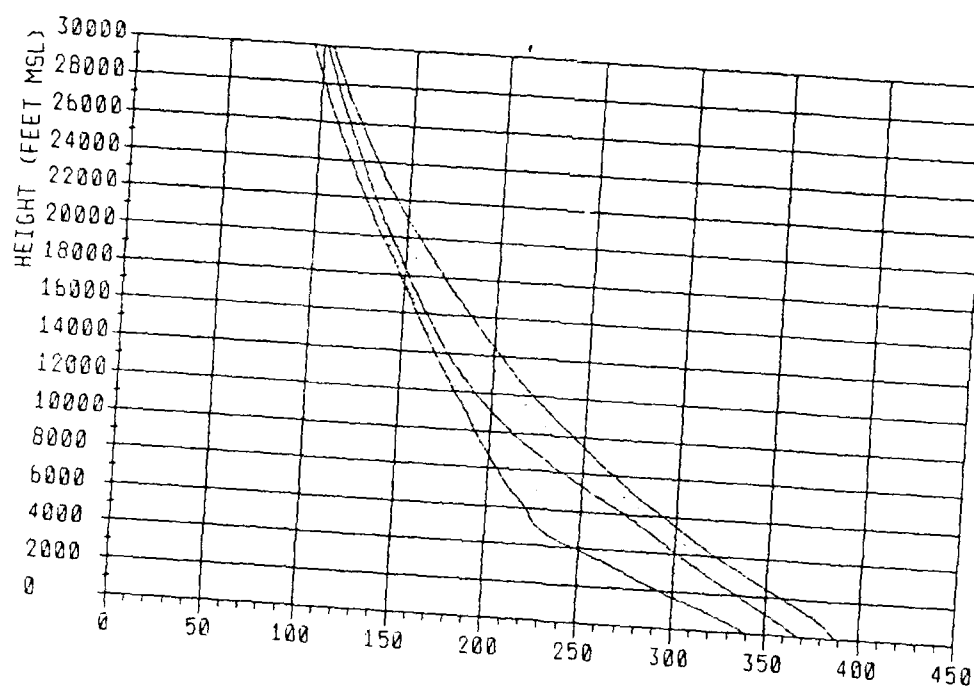
SANTO DOMINGO

WET-DRY TRANSITION

N PERCENTILES



N (N-Units) 0000Z

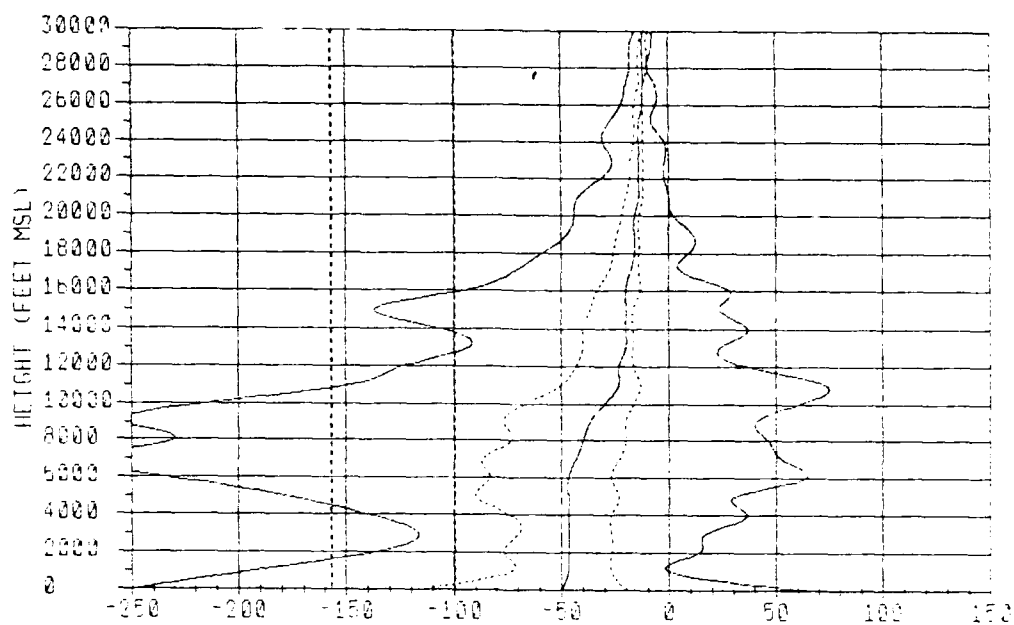


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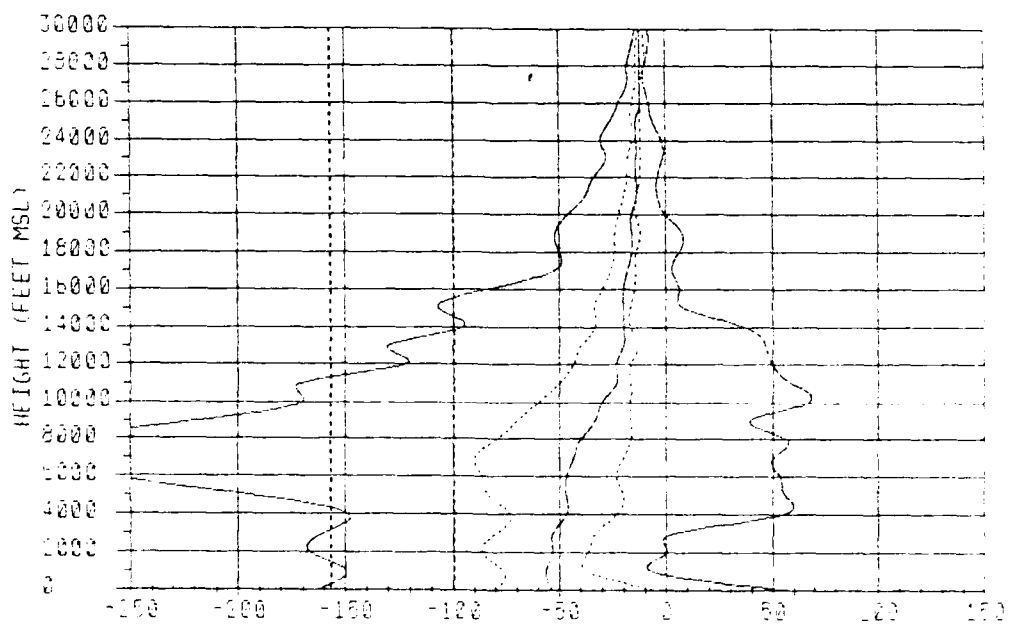
FIGURE B-5-2-A

B-75

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-5-2-B

SANTO DOMINGO

WET-DRY TRANSITION

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%
8FC-500	20.3	151	348	446	34.6	98	249	446	98.3	984	6693	34975	19.1	98	348	350
500-1000	0.7	295	295	492	1.7	98	591	984	2.9	3130	6890	34552	0.7	98	98	394
1000-1500	2.4	98	394	479	3.6	98	394	1083	2.4	1093	6595	31980	0.2	886	886	886
1500-2000	1.2	295	295	394	3.9	236	591	1535	5.1	197	3888	8464	1.2	98	787	1476
2000-2500	0.7	98	295	295	4.4	276	640	1093	4.8	98	4970	21451	1.0	98	295	571
2500-3000	0.5	295	443	591	2.2	98	492	689	6.3	541	2412	20850	1.7	98	787	2658
3000-3500	0.2	295	295	295	1.5	98	689	886	3.6	98	2362	18603	1.5	98	295	886
3500-4000	1.2	98	197	492	1.7	98	394	886	2.7	256	4330	26779	2.2	295	689	1376
4000-4500	1.2	197	295	394	3.1	98	344	886	3.1	98	3051	11553	1.5	394	492	886
4500-5000	3.0	98	295	591	4.7	98	344	965	11.0	98	4330	30250	4.4	98	295	689
5000-6000	3.2	98	344	640	8.9	98	394	787	15.8	128	4970	29660	4.8	295	591	984
6000-7000	8.7	98	295	492	9.4	98	295	689	12.3	98	2067	28380	5.7	167	541	1280
7000-8000	8.9	98	295	492	11.4	98	197	620	19.4	98	2756	27691	7.3	98	394	1376
8000-9000	11.4	197	295	394	11.4	98	295	591	17.6	98	5610	26805	6.8	98	394	1161
9000-10000	6.2	177	295	492	11.0	98	295	394	16.0	98	1969	25723	5.3	98	295	984
10000-11000	4.5	98	295	492	8.2	98	197	492	18.4	98	7841	24935	7.3	98	492	1348
11000-12000	3.0	98	197	295	5.9	98	197	394	11.4	217	4330	23498	5.7	98	394	846
12000-13000	2.3	98	197	384	4.5	98	197	394	7.7	98	2313	22868	4.8	98	394	965
13000-14000	1.6	197	295	295	1.8	98	197	197	7.0	98	2854	21923	4.8	98	394	1181
14000-15000	3.4	98	98	295	4.8	98	98	295	8.2	98	2592	20604	5.5	197	541	1230
15000-16000	2.3	98	197	197	4.5	98	98	295	9.5	98	14600	19718	5.0	98	394	1066
16000-17000	0.9	164	164	164	2.0	98	164	328	6.8	469	12878	18901	3.4	164	492	682
17000-18000	0.7	164	164	164	1.1	164	164	328	3.4	164	11730	17732	2.5	197	656	984
18000-19000	0.9	164	164	164	0.9	164	164	328	7.0	3018	15912	16864	5.2	164	492	919
19000-20000	0.0				0.0				3.1	591	15256	15682	2.6	164	328	755

0000Z

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%
8FC-500	5.8	89	249	348	15.8	71	348	591	97.6	1197	6326	34946	25.8	249	348	446
500-1000	0.0				0.9	98	98	591	3.8	1220	5019	34601	0.7	295	394	886
1000-1500	1.3	98	197	689	3.1	98	492	984	2.7	98	2805	33794	0.2	295	295	295
1500-2000	1.6	197	394	591	5.3	98	394	837	2.9	98	2559	7480	0.7	98	197	591
2000-2500	2.0	197	295	591	4.2	98	197	886	6.4	148	3642	7362	1.1	295	1083	1161
2500-3000	1.3	197	344	787	5.3	98	689	1427	5.1	1358	2543	32632	0.7	98	197	886
3000-3500	0.9	197	246	689	3.8	98	344	896	3.8	98	1378	9304	2.0	98	295	689
3500-4000	1.3	197	295	394	1.3	98	197	591	6.2	98	1673	28672	2.0	98	295	965
4000-4500	1.6	197	295	295	5.1	98	394	787	5.1	98	2362	31057	3.3	354	886	1280
4500-5000	3.3	98	295	531	4.3	98	246	581	10.2	394	3642	30250	5.4	98	394	1014
5000-6000	6.2	98	197	689	10.9	98	295	689	16.4	236	2854	29857	4.9	197	394	1240
6000-7000	10.9	197	295	492	11.5	98	295	679	16.6	197	1969	28577	6.6	98	394	1033
7000-8000	11.3	197	295	394	14.0	98	295	571	20.8	98	2953	27593	6.8	98	591	1309
8000-9000	10.0	98	295	492	13.0	98	197	512	22.3	98	3494	26904	9.1	98	394	1161
9000-10000	7.2	98	295	394	9.4	98	197	423	14.3	98	5019	25821	7.4	98	344	1077
10000-11000	4.7	98	197	394	7.0	98	98	394	17.0	266	5512	24837	7.2	98	394	1024
11000-12000	4.3	98	246	394	6.4	98	197	394	11.5	374	4626	23754	6.4	197	394	689
12000-13000	3.0	98	295	394	4.3	98	197	354	8.5	98	1624	22671	5.3	98	443	1299
13000-14000	2.6	98	197	295	4.3	98	197	295	8.9	98	4429	21687	6.4	98	394	787
14000-15000	1.5	98	98	295	2.6	98	148	404	7.9	98	7086	20801	4.0	98	394	965
15000-16000	1.3	98	197	197	4.3	98	197	295	5.5	187	9022	19620	1.9	98	394	1158
16000-17000	0.2	164	164	164	1.5	98	164	328	4.7	869	18045	18901	3.2	164	492	912
17000-18000	0.2	164	164	164	0.2	328	328	328	2.3	1214	17553	17881	2.3	197	656	1115
18000-19000	0.6	164	164	164	1.5	164	164	164	6.8	1148	15912	16635	4.7	164	328	591
19000-20000	0.0				0.2	164	164	164	1.3	1640	15420	15748	1.5	164	728	820

1200Z

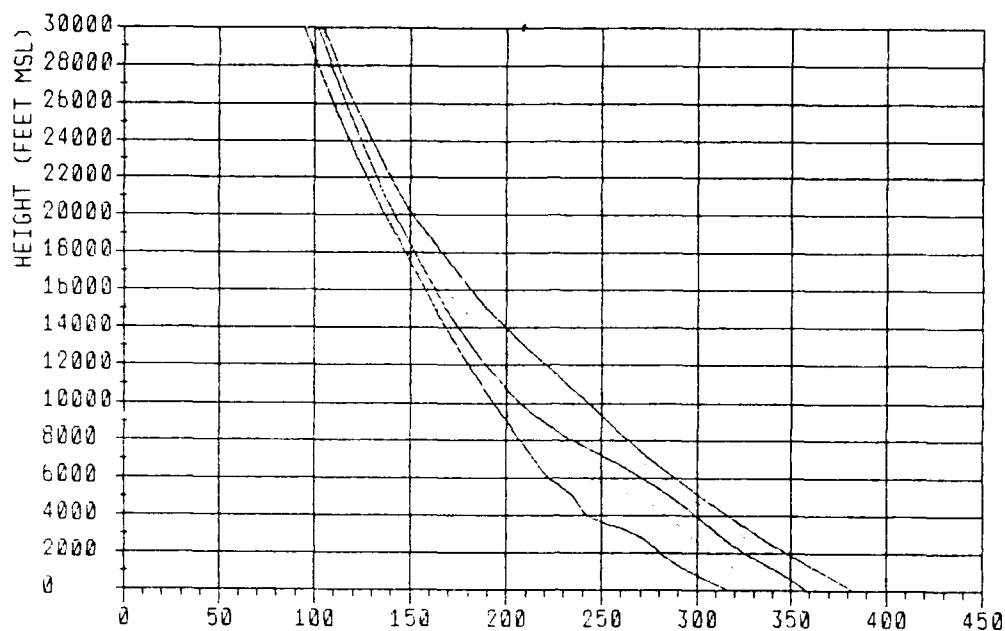
FIGURE B-5-2-D

B-78

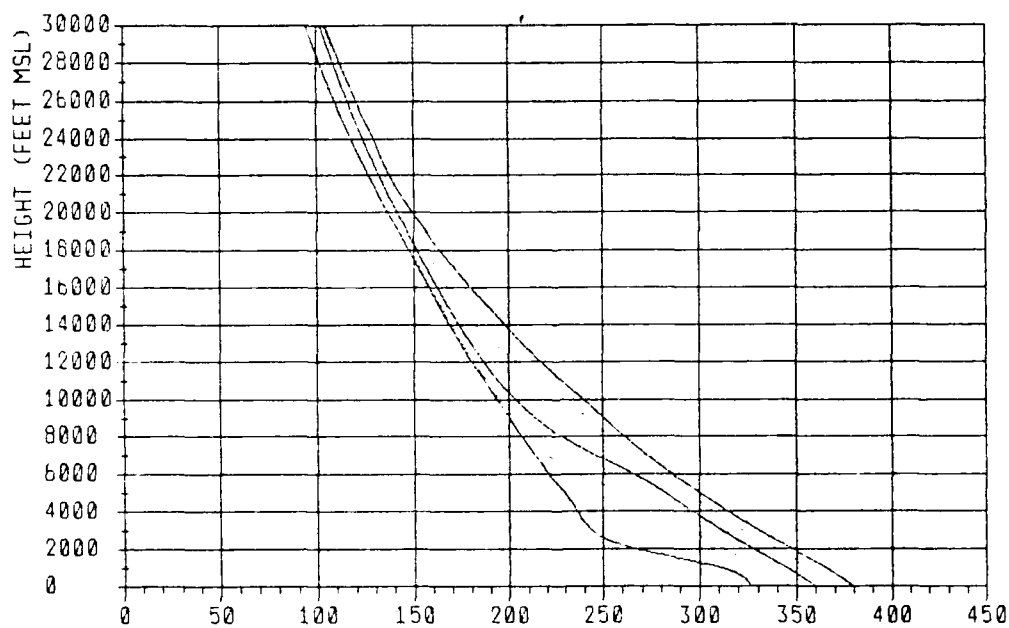
SANTO DOMINGO

DRY SEASON

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

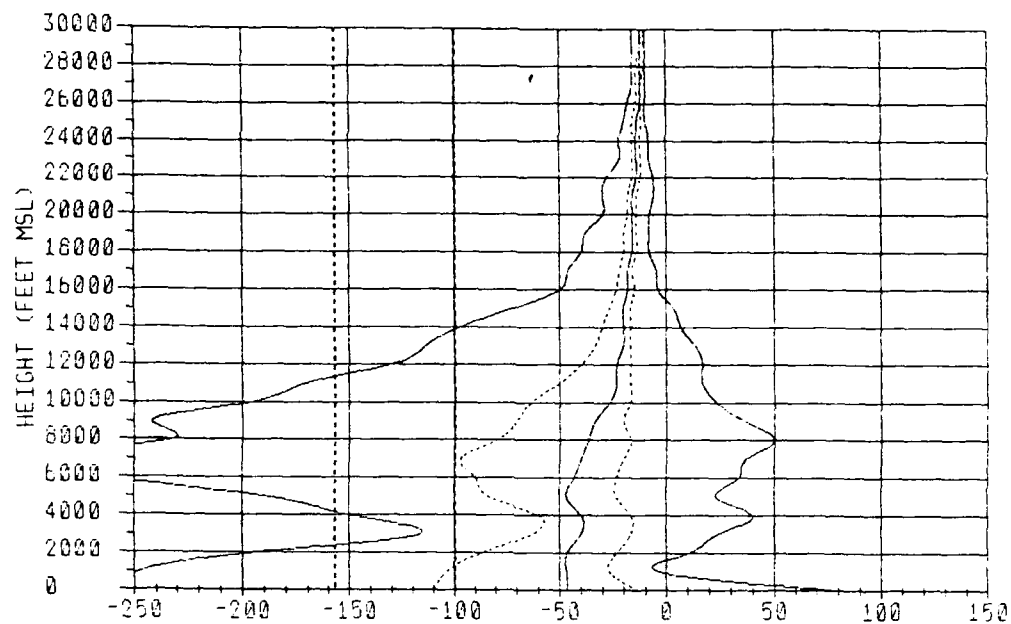
FIGURE B-5-3-A

B-79

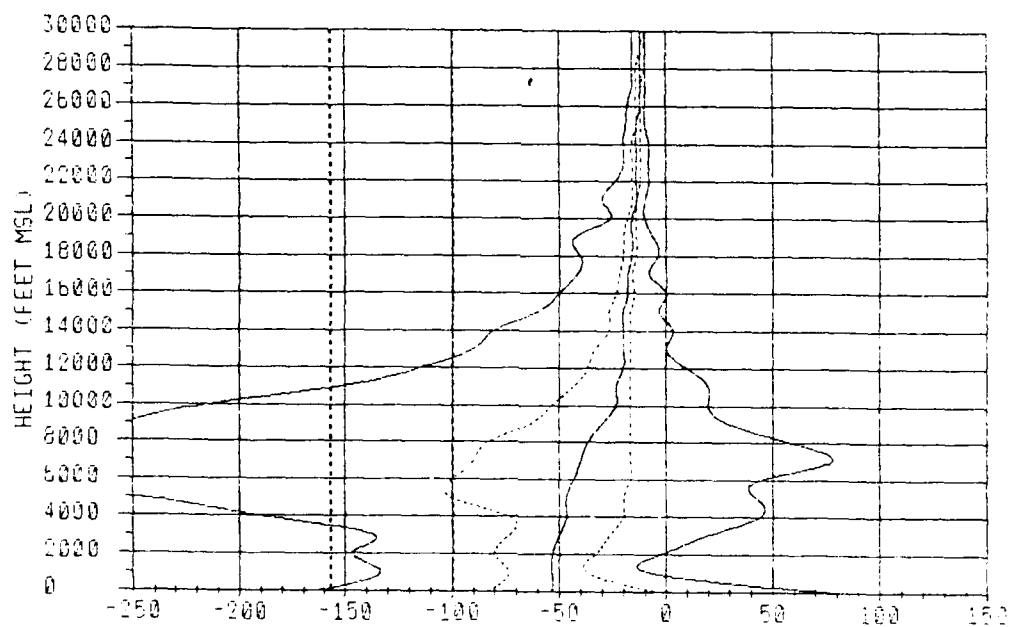
SANTO DOMINGO

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

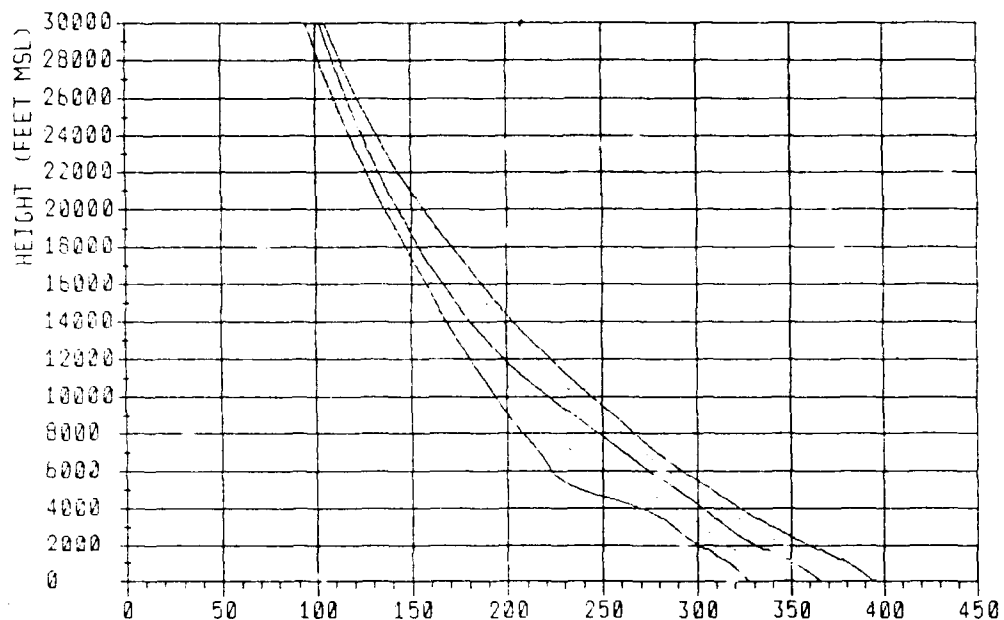
FIGURE B-5-3-B

B-80

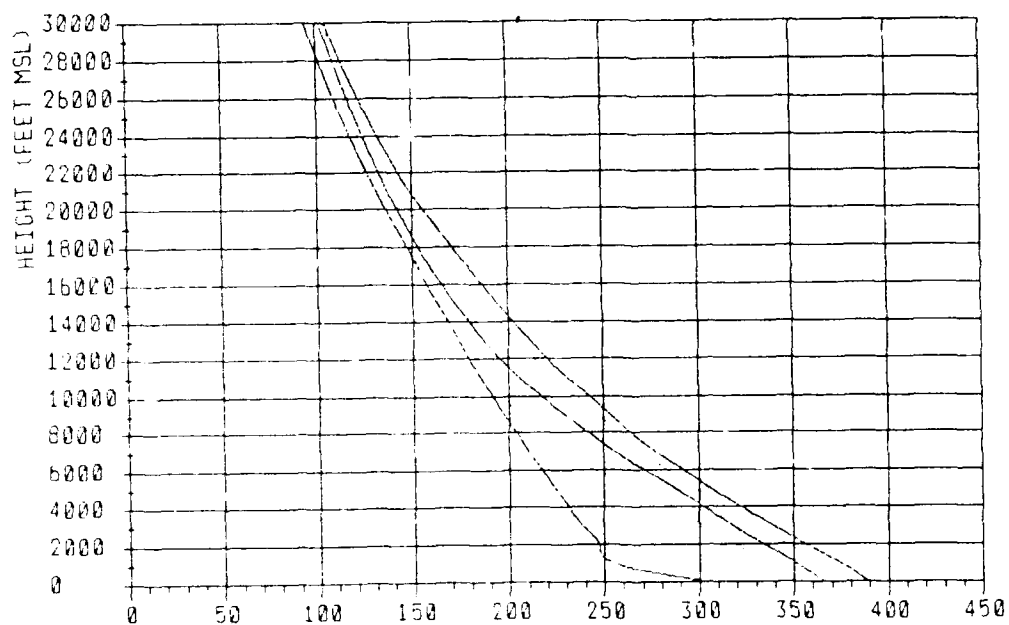
SANTO DOMINGO

DRY-WET TRANSITION

N PERCENTILES



N (N-Units) 0000Z

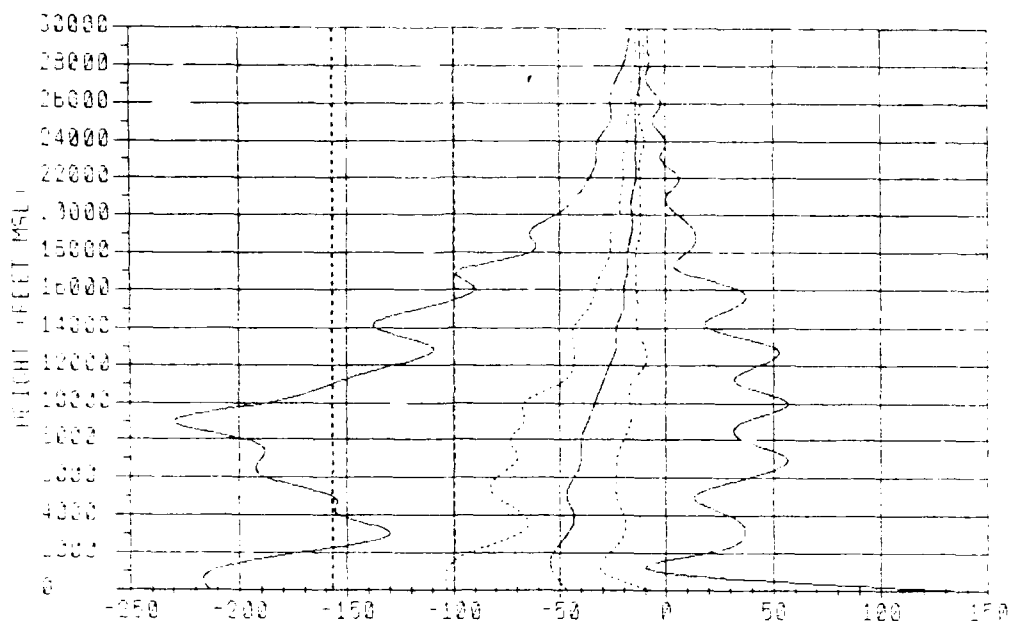


N (N-Units) 1200Z

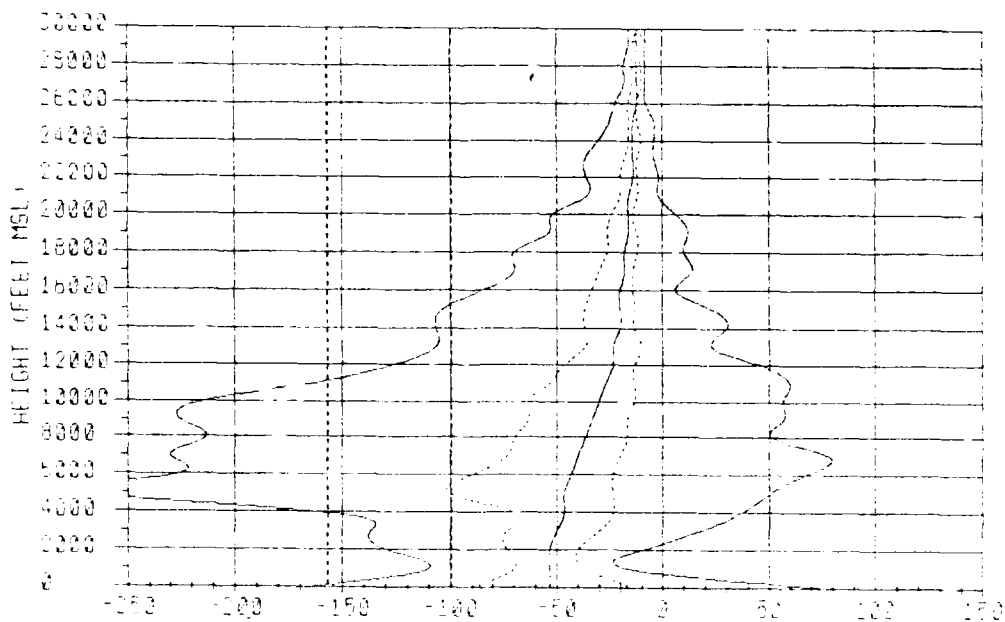
FIGURE B-5-4-A

B-83

GRADIENT PERCENTILES



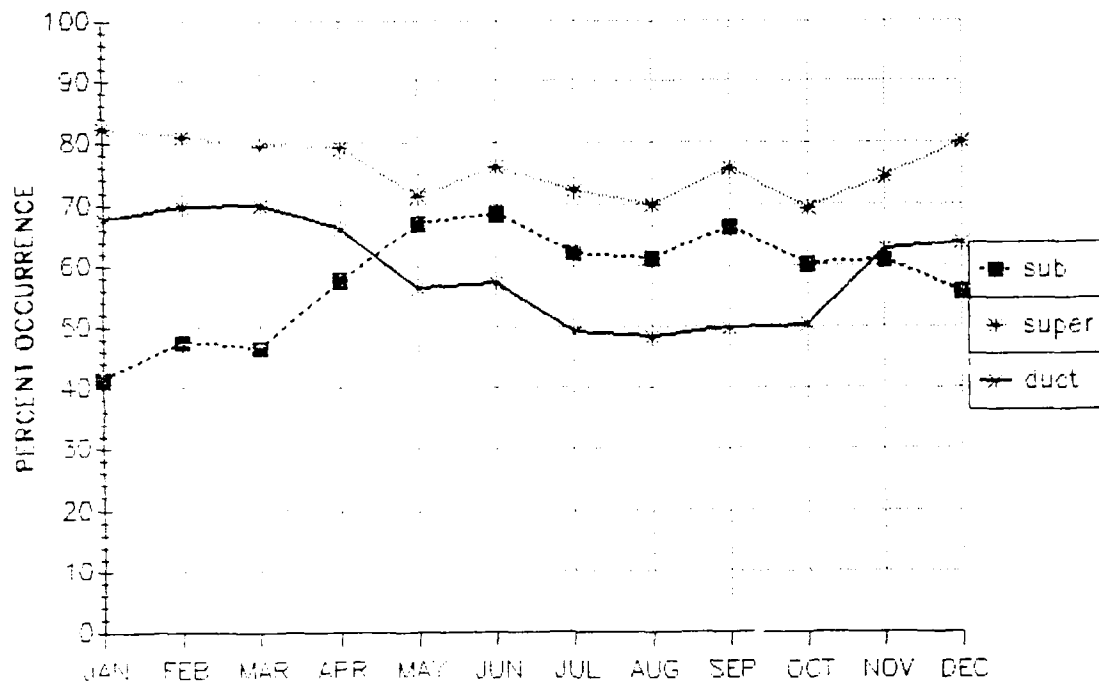
DNDH (N-Units/KM) 0000Z



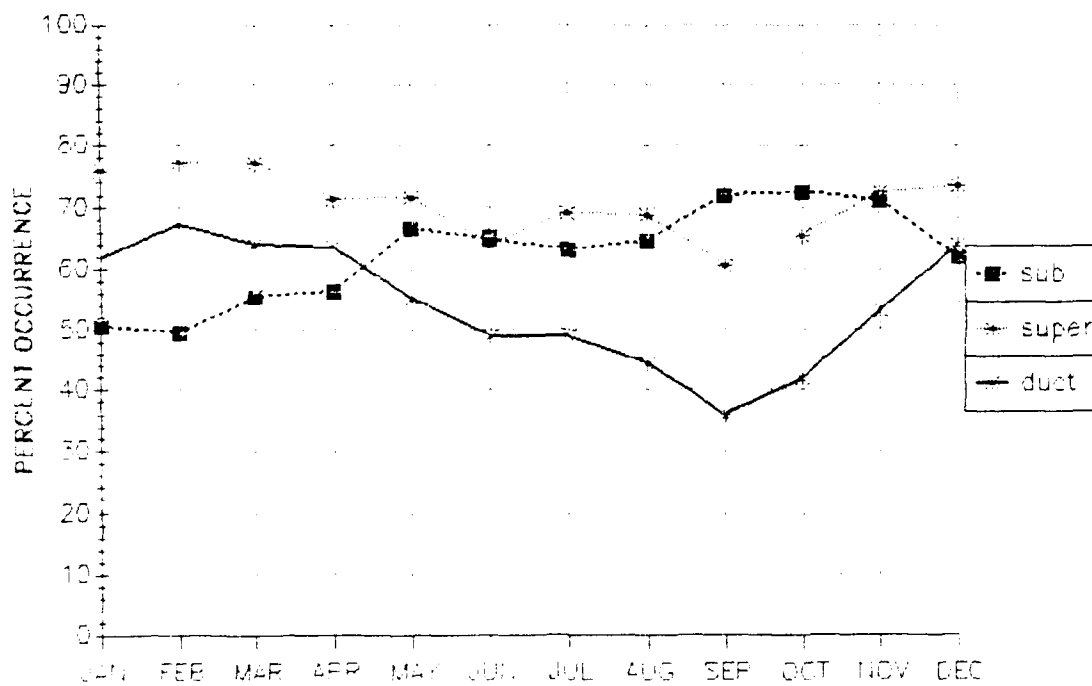
DNDH (N-Units/KM) 1200Z

FIGURE B-5-4-B

AP PERCENT OCCURRENCE FREQUENCY



0000Z

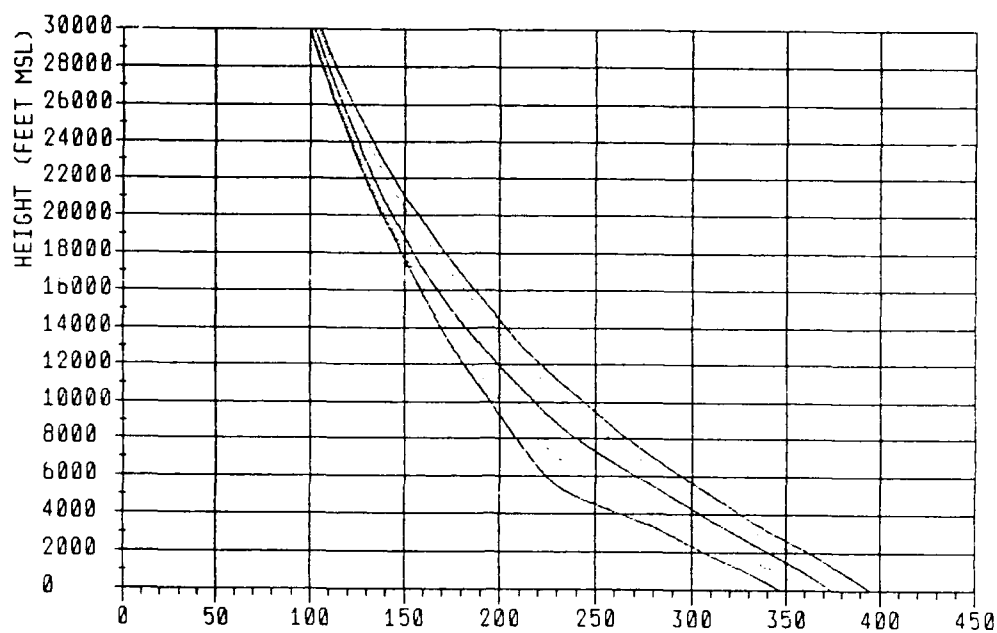


1200Z

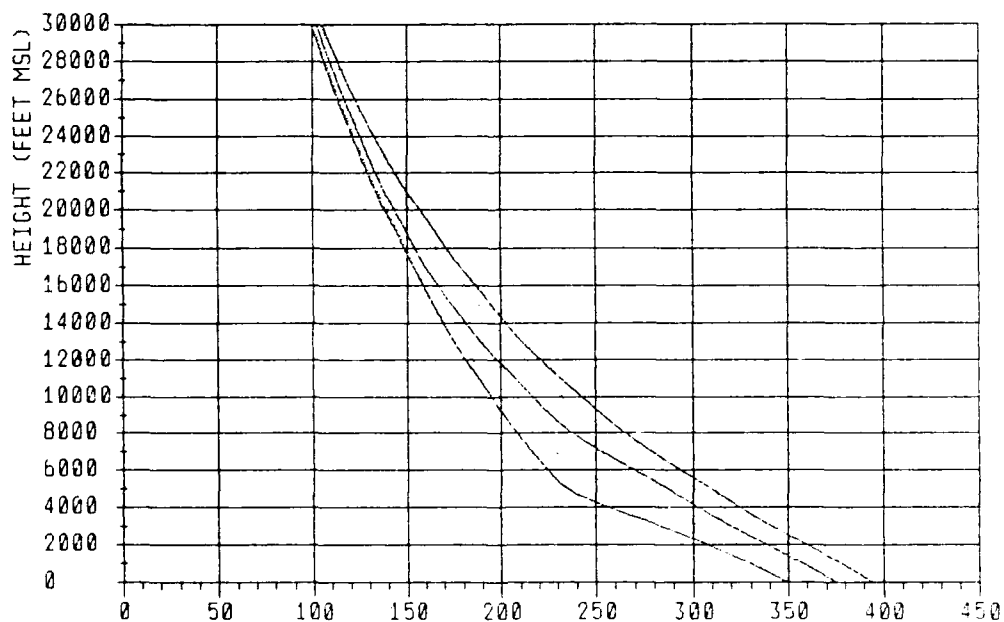
FIGURE B-5-5

B-87

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

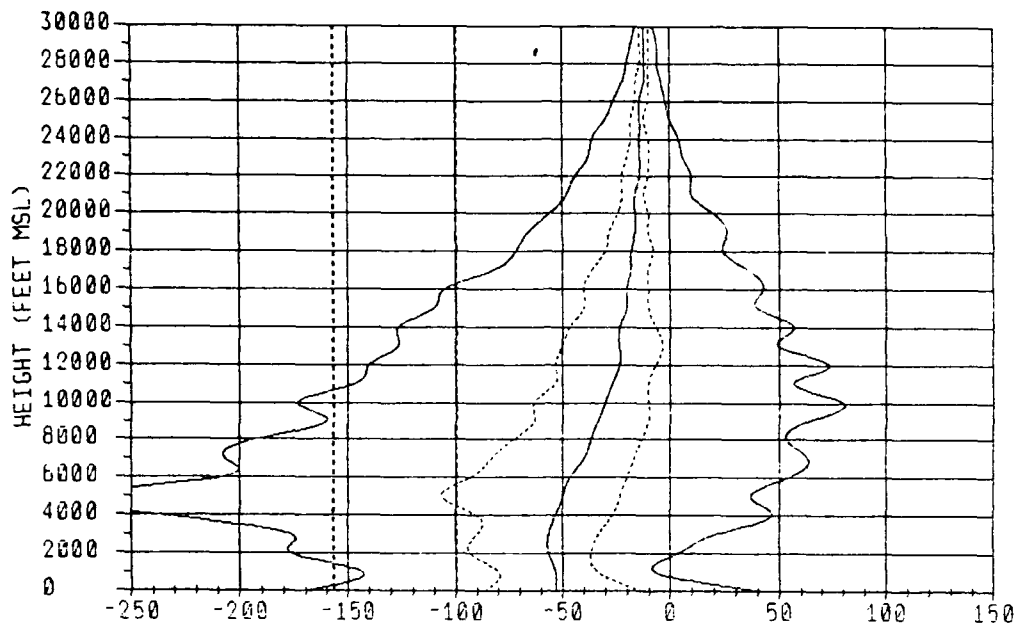
FIGURE B-6-1-A

B-88

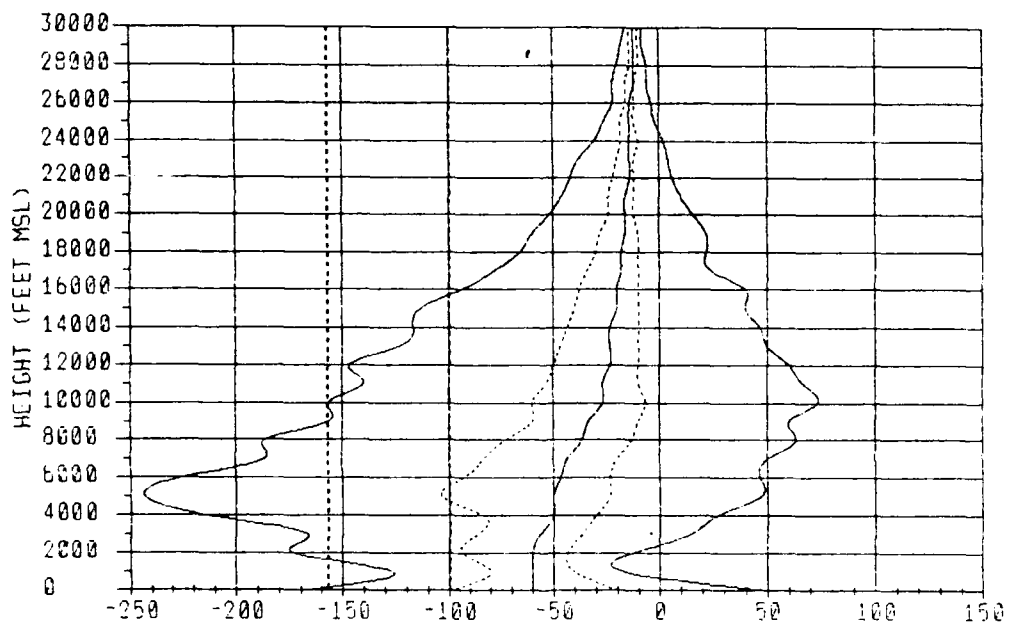
SAN JUAN

WET SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-6-1-B

B-89

SAN JUAN

WET SEASON

HOT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUOT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SNLR	SUB
5FC-500	358.19	367.75	378.88	380.38	388.84	-203.86	-100.00	-43.75	10.42	75.00	6.3	13.7	24.2
500-1000	344.82	358.88	371.89	382.38	380.08	-129.18	-77.00	-58.28	-31.25	-6.25	0.0	5.6	0.6
1000-1500	335.43	350.38	363.75	374.25	381.25	-128.82	-75.00	-54.16	-33.33	-4.17	1.1	3.7	0.9
1500-2000	325.70	341.50	355.50	366.25	373.23	-154.18	-83.33	-58.25	-38.41	-6.33	2.0	6.8	0.9
2000-2500	314.19	332.08	346.50	357.19	363.84	-177.08	-83.75	-58.33	-37.50	0.00	2.4	9.0	1.3
2500-3000	302.75	321.58	336.00	347.08	353.75	-177.60	-83.75	-58.33	-37.50	6.25	3.6	11.1	2.6
3000-3500	292.43	311.58	325.58	336.68	343.38	-168.68	-89.88	-58.25	-33.33	20.23	3.1	8.1	3.6
3500-4000	282.71	302.00	316.89	328.19	334.84	-168.88	-87.50	-54.16	-38.18	31.25	3.6	7.2	4.0
4000-4500	271.08	292.50	308.25	320.08	326.75	-213.94	-87.50	-54.16	-37.08	36.88	4.6	6.2	4.8
4500-5000	267.80	282.30	298.75	312.25	318.88	-260.37	-83.75	-50.00	-37.08	51.58	6.1	10.4	5.7
5000-6000	238.60	260.88	288.89	301.00	309.50	-278.08	-108.25	-50.00	-22.81	36.28	13.4	20.2	7.9
6000-7000	223.80	241.80	268.75	284.88	292.88	-208.38	-101.72	-43.75	-20.08	58.25	8.8	18.6	8.2
7000-8000	215.60	228.80	254.00	271.00	278.18	-208.84	-83.33	-38.87	-18.68	82.50	8.2	14.1	10.8
8000-9000	207.40	218.30	238.80	258.88	265.58	-188.97	-73.30	-38.59	-13.28	80.02	6.8	13.0	12.7
9000-10000	200.40	208.80	228.30	243.40	252.72	-158.92	-63.28	-30.07	-10.03	88.68	5.1	8.4	13.6
10000-11000	193.50	199.20	218.40	232.00	241.70	-188.82	-83.28	-29.88	-10.03	73.30	8.9	10.1	16.8
11000-12000	188.40	191.10	208.40	221.80	228.77	-148.74	-83.38	-26.88	-10.03	85.28	4.9	8.6	14.6
12000-13000	180.10	183.60	197.30	212.00	218.00	-138.97	-50.00	-23.30	-3.38	73.30	4.1	8.1	16.0
13000-14000	173.80	178.80	188.80	203.80	209.80	-133.33	-50.00	-23.30	-3.38	88.84	4.2	8.8	16.8
14000-15000	167.80	170.20	180.10	195.40	201.13	-128.68	-43.38	-23.30	-9.80	90.00	3.5	7.0	18.2
15000-16000	162.30	164.40	172.50	187.20	192.88	-108.88	-39.87	-20.08	-9.80	48.81	2.5	8.3	14.4
16000-17000	158.80	158.80	168.80	178.80	185.00	-103.88	-38.87	-20.00	-10.00	42.88	2.0	4.3	13.8
17000-18000	151.60	153.30	168.80	171.30	178.70	-80.00	-32.61	-18.04	-10.00	32.03	0.8	2.1	11.8
18000-19000	148.10	147.60	162.70	163.80	168.30	-70.00	-28.04	-17.88	-10.00	27.88	0.2	1.6	14.4
19000-20000	141.40	142.80	148.80	158.70	161.50	-62.03	-27.88	-18.01	-10.00	22.03	0.1	1.0	9.0
20000-21000	138.80	138.10	141.80	150.80	154.80	-92.03	-23.88	-18.01	-10.00	18.01	0.2	0.4	8.2
21000-22000	132.40	133.60	138.80	144.80	148.70	-47.88	-22.03	-18.01	-10.78	12.03	0.0	0.2	7.3
22000-23000	128.10	128.30	132.40	139.00	142.80	-43.88	-21.88	-14.08	-10.00	8.08	0.0	0.2	7.1
23000-24000	123.40	124.70	127.80	133.28	138.60	-38.01	-20.00	-13.88	-10.00	4.08	0.1	0.3	8.7
24000-25000	118.40	120.50	123.30	127.80	130.50	-33.88	-18.04	-13.88	-10.00	3.88	0.0	0.1	4.7
25000-26000	118.80	118.80	118.10	123.00	128.50	-28.04	-17.88	-13.88	-10.00	0.00	0.0	0.1	3.4
26000-27000	111.80	112.80	118.20	118.50	120.80	-28.01	-18.01	-13.88	-11.88	-3.03	0.0	0.0	2.0
27000-28000	107.88	108.70	111.10	113.80	118.90	-22.03	-18.01	-12.03	-10.00	-3.88	0.0	0.0	2.0
28000-29000	104.10	108.00	107.00	109.40	110.90	-18.04	-13.88	-12.03	-10.00	-8.02	0.0	0.0	0.7
29000-30000	100.80	101.70	103.80	108.50	108.90	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.3
30000-31000	97.50	98.40	100.10	101.80	103.00	-18.94	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.2
31000-32000	94.40	95.20	98.80	98.40	99.40	-14.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
32000-33000	90.80	91.60	93.20	94.80	95.80	-28.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	87.70	88.30	88.70	91.00	91.80	-27.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	85.80	86.20	87.00	87.80	88.50	-22.03	-10.00	-10.00	-10.00	-8.08	0.0	0.0	0.0

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE SNLR SUB	
		10%	50%	90%	99%		10%	50%	90%	99%			
5FC-500	358.75	370.18	381.38	390.19	397.25	-202.08	-118.86	-58.28	6.25	102.08	8.0	22.8	17.8
500-1000	347.03	359.88	371.38	381.75	388.88	-131.25	-85.41	-60.41	-39.58	-10.42	0.8	5.8	0.8
1000-1500	338.46	350.25	362.25	372.58	378.75	-110.41	-79.18	-60.41	-39.58	-14.58	0.8	2.7	0.8
1500-2000	328.31	340.75	353.38	363.75	370.82	-139.88	-81.28	-58.33	-41.68	-18.28	1.4	5.1	0.8
2000-2500	318.00	331.00	344.18	354.69	361.78	-179.18	-88.88	-60.41	-42.75	-22.81	3.1	8.4	0.8
2500-3000	302.00	319.38	333.38	344.58	351.68	-186.68	-95.43	-58.33	-43.75	-4.17	2.8	12.2	1.8
3000-3500	289.28	308.38	323.19	334.88	341.94	-160.41	-88.88	-58.25	-39.58	7.48	2.3	9.0	2.2
3500-4000	278.75	298.88	314.38	328.08	333.44	-188.87	-83.33	-54.16	-33.33	27.08	3.2	8.8	3.8
4000-4500	261.77	280.00	308.08	318.08	328.50	-205.33	-83.33	-52.08	-28.18	20.83	4.0	7.1	4.3
4500-5000	250.00	278.88	298.22	310.88	318.00	-215.81	-83.33	-50.00	-28.00	38.88	4.6	7.9	5.8
5000-6000	233.60	258.88	285.44	299.88	308.45	-250.00	-100.00	-80.00	-23.44	43.75	12.7	18.2	8.0
6000-7000	223.82	240.80	267.75	283.88	291.88	-218.33	-93.75	-48.83	-22.81	48.78	9.8	17.8	9.1
7000-8000	215.40	228.10	251.90	269.00	278.05	-192.05	-83.33	-41.68	-18.82	47.87	8.3	14.4	9.1
8000-9000	207.20	218.70	238.50	254.70	264.00	-188.97	-70.08	-38.59	-13.41	83.28	7.1	11.9	13.4
9000-10000	200.00	208.40	224.38	241.50	250.80	-148.81	-60.02	-30.07	-10.03	83.28	4.3	9.4	13.7
10000-11000	193.40	198.10	214.80	230.50	240.10	-153.38	-80.02	-26.88	-8.84	73.30	8.1	9.8	18.0
11000-12000	188.30	190.80	205.40	220.70	228.00	-140.08	-83.25	-26.88	-9.80	88.88	4.8	8.3	18.1
12000-13000	180.00	183.30	198.30	211.30	218.80	-140.10	-80.00	-23.44	-10.03	88.84	4.4	7.2	14.8
13000-14000	173.80	178.40	187.80	202.80	208.17	-123.30	-48.81	-23.30	-9.80	82.34	3.8	7.2	14.8
14000-15000	167.80	170.00	179.30	193.80	200.11	-119.82	-40.10	-20.08	-9.80	48.81	3.2	6.2	13.8
15000-16000	162.30	164.20	171.80	185.80	192.20	-108.88	-39.87	-20.08	-10.03	38.87	2.7	5.7	13.6
16000-17000	158.80	158.70	164.80	178.40	184.80	-80.00	-38.01	-20.00	-11.88	37.80	1.2	3.0	11.8
17000-18000	151.70	153.20	157.80	170.50	178.90	-72.71	-32.03	-17.88	-10.00	27.88	0.3	1.4	10.8
18000-19000	148.10	147.50	152.00	163.00	168.80	-88.01	-28.04	-18.01	-10.00	22.03	0.2	1.8	10.8
19000-20000	141.40	142.70	148.30	158.80	160.80	-58.07	-28.01	-18.01	-11.88	17.88	0.2	0.7	7.4
20000-21000	138.80	138.00	141.40	148.80	154.30	-81.85	-23.88	-18.01	-11.88	15.84	0.0	0.4	7.4
21000-22000	132.30	133.60	138.70	143.70	147.80	-42.03	-22.03	-18.84	-11.88	8.08	0.0	0.4	5.8
22000-23000	128.10	129.20	132.20	138.00	142.00	-40.00	-20.00	-13.88	-11.88	8.02	0.0	0.1	5.8
23000-24000	123.30	124.80	127.80	132.80	136.00	-38.88	-20.00	-13.88	-10.00	2.03	0.0	0.0	4.8
24000-25000	118.20	120.40	123.00	127.20	130.00	-30.00	-18.04	-13.88	-11.88	1.88	0.0	0.0	3.8
25000-26000	118.30	118.80	118.90	122.40	128.00	-23.88	-18.01	-13.88	-11.88	-3.88	0.0	0.0	1.8
26000-27000	111.80	112.70	118.00	117.90	120.30	-23.88	-18.01	-12.03	-11.88	-4.04	0.0	0.0	1.3
27000-28000	107.40	108.80	110.90	113.50	118.80	-20.00	-18.84	-12.03	-10.00	-8.02	0.0	0.0	1.1
28000-29000	103.80	105.00	108.90	109.00	110.80	-18.04	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.4
29000-30000	100.80	101.80	103.30	108.20	108.80	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.2
30000-31000	97.30	98.30	99.90	101.60	102.80	-14.08	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.1
31000-32000	94.20	95.10	98.80	98.20	99.20	-18.94	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
32000-33000	90.80	91.50	93.10	94.80	95.70	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
33000-34000	87.80	88.30	89.80	91.00	91.70	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	85.40	86.10	87.00	87.80	88.40	-20.13	-10.00	-10.00	-8.05	-7.87	0.0	0.0	0.0

SAN JUAN

WET SEASON

THICKNESS STATISTICS

BASE FT MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	5.3	89	384	482	13.7	98	384	689	98.9	1467	5216	16132	24.2	98	384	482
500-1000	0.5	98	344	591	0.8	98	197	1230	2.6	98	4134	23661	0.3	197	591	886
1000-1500	0.7	98	492	709	2.6	98	640	1171	2.3	98	3642	24272	0.4	98	541	1280
1500-2000	1.4	256	394	689	4.6	98	591	1083	2.5	98	4331	21867	0.4	98	295	3150
2000-2500	1.7	98	394	689	4.8	98	640	1083	4.6	98	2854	12933	1.1	128	591	1181
2500-3000	2.6	197	394	620	6.4	98	295	984	7.4	98	3150	14705	1.5	98	591	886
3000-3500	1.8	98	295	689	4.3	98	295	994	6.4	138	2559	16647	2.3	207	591	984
3500-4000	2.7	98	295	591	4.0	98	394	984	5.3	98	2264	16155	2.0	98	492	994
4000-4500	3.1	98	394	689	5.2	98	492	886	6.0	98	2264	12815	2.5	246	541	886
4500-5000	4.3	157	295	591	6.1	98	197	689	7.0	98	2362	24639	3.1	197	394	728
5000-6000	11.8	197	344	591	18.4	98	295	787	23.3	98	4626	29561	6.5	98	492	1053
6000-7000	7.5	98	295	492	12.0	98	295	689	18.6	98	3543	28479	6.7	98	394	984
7000-8000	6.2	98	295	492	11.6	98	295	591	17.6	98	3051	27297	7.7	197	394	1083
8000-9000	5.9	98	295	394	10.2	98	295	591	17.2	98	1772	14403	9.5	197	394	1132
9000-10000	4.3	98	197	394	6.9	98	197	492	14.0	98	1821	25457	9.6	98	394	984
10000-11000	5.5	98	197	394	9.2	98	197	394	18.6	98	2215	24728	10.7	197	492	984
11000-12000	4.5	98	197	295	7.4	98	197	394	15.0	98	1969	23656	11.2	98	492	1083
12000-13000	3.8	98	98	295	8.4	98	197	295	17.2	98	1476	22277	13.4	98	492	984
13000-14000	3.9	98	98	197	7.7	98	197	295	19.0	98	1870	21510	13.4	98	394	886
14000-15000	3.4	98	197	197	6.6	98	98	295	16.4	98	3248	20703	9.2	148	394	886
15000-16000	2.3	98	98	197	4.8	98	197	295	12.6	98	2756	19620	11.1	98	394	853
16000-17000	1.8	98	164	230	3.8	131	164	328	13.7	295	3445	18701	9.1	164	492	912
17000-18000	0.5	164	164	164	2.1	164	164	328	10.2	328	6397	17717	8.7	164	328	820
18000-19000	0.2	164	164	164	1.6	164	164	328	13.8	492	7054	16733	11.6	164	328	820
19000-20000	0.1	164	164	164	1.0	164	164	328	7.2	328	5987	15584	7.1	164	328	820

0000Z

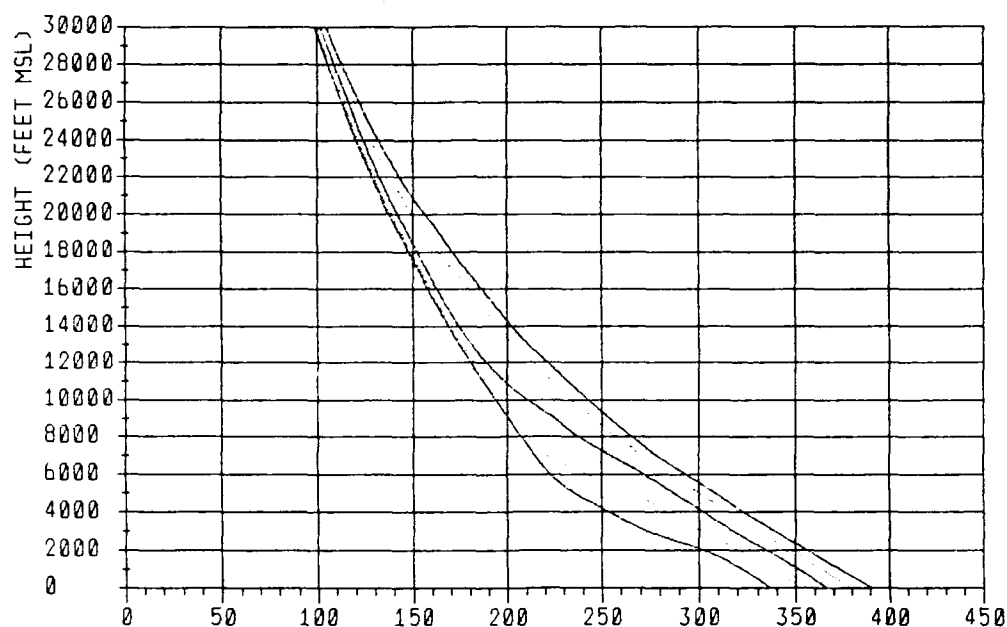
BASE FT MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	6.0	89	340	482	22.6	98	384	591	97.9	1280	5600	18964	17.8	187	384	482
500-1000	0.0				1.2	98	148	1152	5.7	443	7579	34384	0.2	98	492	492
1000-1500	0.5	98	197	591	1.3	98	591	1457	2.6	1575	5610	21037	0.3	98	197	1474
1500-2000	1.3	98	394	659	4.1	98	689	1339	1.2	98	4921	14784	0.3	98	394	984
2000-2500	2.3	98	394	591	5.7	98	591	1083	3.3	98	2854	13091	0.5	394	443	689
2500-3000	1.7	98	394	591	6.4	98	492	1083	6.7	492	2461	9466	0.9	266	689	1161
3000-3500	1.7	197	394	591	3.6	98	394	1083	6.0	98	3051	31825	1.5	98	394	807
3500-4000	2.2	197	394	787	3.5	98	492	886	5.0	98	1969	29460	2.4	98	591	1280
4000-4500	2.8	98	394	689	4.4	98	492	896	5.3	98	2362	30742	2.5	98	591	945
4500-5000	2.8	98	295	591	4.8	98	295	689	6.5	98	2165	30270	2.9	98	295	591
5000-6000	11.5	98	295	591	17.2	98	295	787	21.6	98	4921	29561	6.7	197	492	984
6000-7000	7.3	98	295	492	14.1	98	295	689	18.4	98	3593	28577	6.9	197	492	984
7000-8000	5.3	98	295	463	10.5	98	295	591	17.0	98	3248	27691	6.3	177	492	1181
8000-9000	6.2	98	295	394	9.8	98	295	492	15.8	98	2264	26569	10.3	128	492	1280
9000-10000	3.6	98	197	394	7.6	98	197	394	14.8	98	1870	25526	8.9	98	394	886
10000-11000	4.5	98	197	295	8.9	98	197	394	18.9	98	1969	24679	12.8	98	394	1083
11000-12000	4.4	98	197	295	7.4	98	197	394	16.5	98	2264	23656	11.7	98	394	886
12000-13000	4.1	98	197	295	6.8	98	197	295	15.9	98	2067	22671	10.1	98	394	984
13000-14000	3.5	98	98	197	6.9	98	197	295	15.4	98	2165	21687	10.4	98	394	984
14000-15000	3.2	98	98	197	6.0	98	98	295	14.2	98	1772	20584	10.5	98	394	886
15000-16000	2.6	98	98	197	5.3	98	98	295	13.6	98	3297	19817	9.5	98	394	797
16000-17000	1.0	98	164	328	2.7	98	164	328	12.4	328	5413	18832	7.8	164	459	827
17000-18000	0.3	164	164	164	1.4	164	164	246	8.4	410	4101	17717	8.4	164	328	984
18000-19000	0.2	164	164	164	1.8	164	164	295	11.1	328	15512	16733	8.8	164	492	656
19000-20000	0.2	164	164	164	0.6	164	164	295	6.6	492	14928	15748	5.9	164	328	820

1200Z

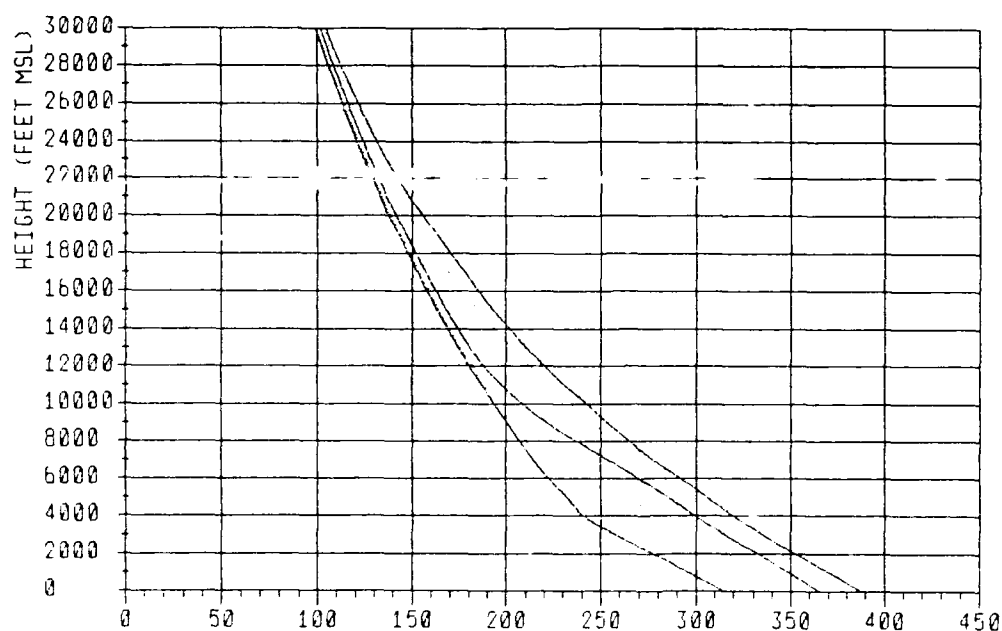
FIGURE B-6-1-D

B-91

N PERCENTILES



N (N-Units) 0000Z



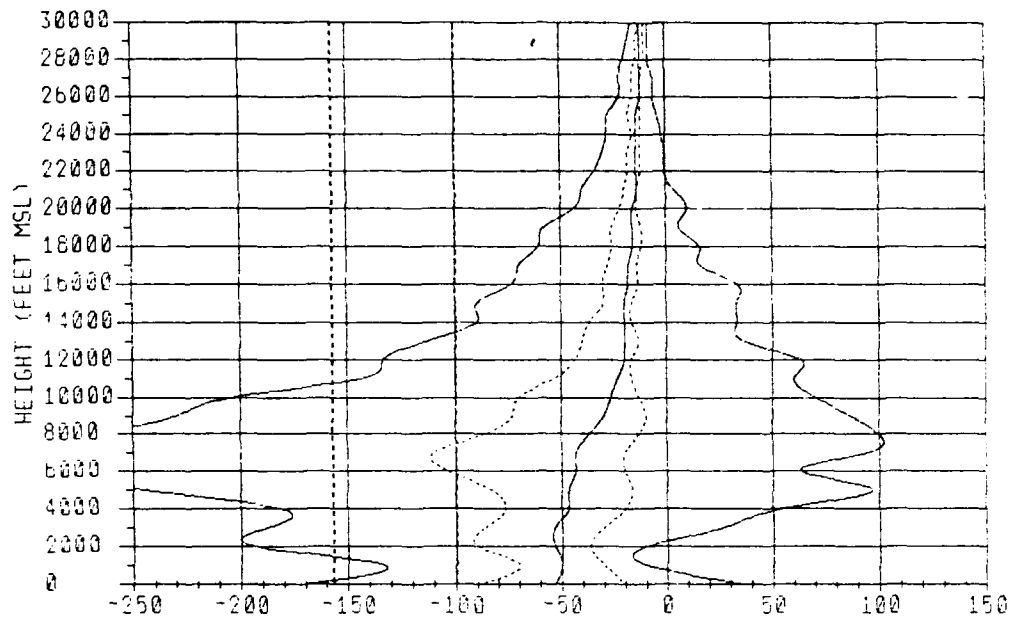
N (N-Units) 1200Z

FIGURE B-6-2-A

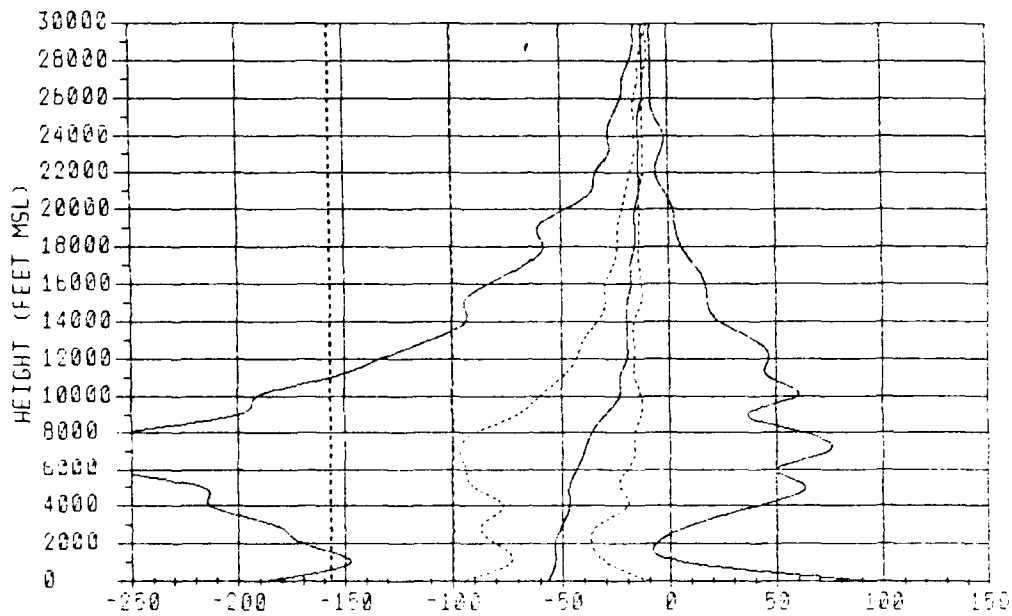
SAN JUAN

WET-DRY TRANSITION

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-6-2-B

B-93

SAN JUAN

WET-DRY TRANSITION

WET FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
8FC-800	342.18	387.80	371.83	384.80	389.78	-204.29	-108.33	-80.00	0.00	82.80	8.4	18.2	18.8
800-1000	334.70	348.82	382.88	378.80	388.88	-110.41	-72.91	-82.08	-28.18	-12.80	0.4	2.8	0.3
1000-1800	328.03	342.18	388.80	386.78	378.17	-110.41	-70.83	-80.00	-28.18	-10.42	0.7	2.2	0.3
1800-2000	320.08	338.28	347.78	388.78	387.37	-148.78	-87.83	-80.00	-28.18	-10.42	1.2	4.4	0.3
2000-2800	310.81	328.88	338.88	380.88	388.34	-187.17	-70.80	-84.18	-32.33	-18.88	4.2	8.7	0.8
2800-3000	284.88	318.78	330.88	341.02	348.78	-208.29	-100.00	-84.18	-38.41	-8.28	4.8	11.8	1.8
3000-3800	278.01	304.72	320.38	331.28	339.38	-188.28	-83.33	-82.08	-33.33	22.81	1.8	7.8	3.2
3800-4000	270.40	288.84	312.18	323.18	331.24	-183.33	-77.08	-80.00	-27.08	80.00	2.9	8.4	8.7
4000-4800	260.08	288.88	304.88	318.38	323.88	-171.81	-78.00	-80.00	-20.83	38.88	3.7	8.1	8.8
4800-5000	248.87	281.18	287.88	308.37	318.18	-177.08	-72.91	-48.83	-18.88	88.33	3.8	7.9	9.2
5000-8000	234.88	288.47	288.88	288.88	307.00	-288.91	-83.33	-48.83	-18.78	87.04	10.8	13.2	10.8
8000-7000	222.47	240.70	270.88	283.88	281.21	-304.28	-103.38	-43.78	-22.81	82.74	18.2	18.8	11.1
7000-6000	214.80	221.10	283.70	270.08	277.88	-313.28	-110.02	-41.88	-18.82	88.81	17.3	22.7	14.0
6000-5000	208.10	208.80	238.30	258.28	284.78	-278.88	-88.71	-38.71	-13.28	83.28	18.3	18.2	18.4
5000-10000	188.10	201.80	221.80	242.80	281.33	-233.33	-70.08	-28.88	-10.03	78.88	9.3	14.8	13.8
10000-11000	182.40	184.40	207.40	231.30	240.48	-188.71	-88.88	-23.44	-18.88	83.28	7.8	12.1	13.4
11000-12000	188.80	187.80	188.80	220.80	228.70	-143.38	-80.00	-23.30	-18.88	71.78	4.1	7.8	10.3
12000-13000	178.30	180.80	188.80	210.80	218.40	-128.88	-40.10	-20.08	-18.88	48.88	3.8	8.8	9.2
13000-14000	172.80	174.40	178.40	201.20	208.78	-110.03	-38.87	-20.08	-18.88	33.33	2.0	8.2	8.8
14000-18000	167.20	168.80	172.80	182.00	188.40	-80.10	-33.33	-20.08	-18.88	34.80	2.2	3.4	8.3
18000-18000	181.80	183.80	188.80	184.10	181.70	-88.87	-30.07	-18.82	-13.41	30.07	1.8	3.2	7.8
18000-17000	188.80	187.70	181.40	178.80	184.00	-73.83	-28.88	-17.88	-13.88	28.88	0.7	1.8	8.8
17000-18000	181.31	183.80	188.70	188.83	178.88	-70.00	-28.01	-18.01	-13.88	11.82	0.7	1.7	8.4
18000-18000	148.70	147.00	180.80	180.80	188.30	-88.88	-24.08	-18.01	-11.88	15.80	0.4	0.4	7.7
18000-20000	140.80	142.20	148.00	153.80	180.70	-80.00	-23.88	-18.01	-13.88	4.30	0.1	0.8	3.8
20000-21000	138.30	137.80	140.30	147.20	183.80	-43.88	-22.03	-18.01	-13.88	8.88	0.1	0.1	3.8
21000-22000	131.80	133.10	138.70	141.70	147.20	-38.01	-20.00	-14.08	-12.03	3.88	0.0	0.0	3.8
22000-23000	127.70	128.80	131.30	138.80	141.20	-31.88	-18.08	-13.88	-11.88	-2.03	0.0	0.3	2.1
23000-24000	122.80	124.20	128.80	131.00	138.80	-28.01	-17.88	-13.88	-11.88	-1.88	0.0	0.1	2.8
24000-28000	118.80	120.20	122.80	128.10	128.80	-27.88	-17.88	-13.88	-11.88	-3.88	0.0	0.0	1.8
28000-28000	118.00	118.20	118.40	121.80	124.40	-24.08	-18.01	-13.88	-11.88	-8.84	0.0	0.0	1.0
28000-27000	111.24	112.80	114.80	117.00	118.80	-20.00	-18.01	-12.03	-11.88	-8.84	0.0	0.0	0.8
27000-28000	107.00	108.80	110.40	112.80	118.08	-20.00	-14.08	-12.03	-10.00	-8.02	0.0	0.0	0.7
28000-28000	103.80	104.70	108.80	108.40	110.20	-17.88	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.7
28000-30000	100.10	101.30	103.00	104.80	108.10	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.0
30000-31000	88.80	88.10	88.70	101.30	102.80	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
31000-32000	83.80	84.80	88.40	87.80	88.00	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
32000-33000	88.80	81.20	82.80	84.80	88.40	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	88.70	88.00	88.40	80.80	81.80	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	84.80	88.80	88.80	87.80	88.30	-18.01	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

0000Z

WET FT MSL	1%	N PERCENTILES			99%	1%	DNDR PERCENTILES			99%	PERCENT DUCT	OCCURRENCE	
		10%	50%	90%			10%	50%	90%			SRLR	SUB
8FC-800	334.02	388.08	371.38	382.28	380.17	-248.82	-110.41	-80.00	20.83	118.78	7.8	20.1	28.0
800-1000	282.08	348.00	381.88	374.28	382.88	-148.28	-83.33	-88.28	-33.33	-2.83	2.2	8.2	1.8
1000-1800	287.78	338.88	383.08	388.18	372.88	-108.80	-72.91	-84.18	-31.28	8.28	1.0	1.8	1.3
1800-2000	280.88	331.00	348.28	388.88	384.88	-180.41	-72.91	-84.18	-33.33	4.17	1.8	2.8	1.8
2000-2800	282.21	322.78	337.80	347.88	354.84	-172.91	-78.00	-84.18	-33.33	-6.28	2.8	8.8	0.8
2800-3000	287.80	312.88	328.08	338.38	348.00	-184.88	-87.80	-84.18	-38.41	-4.17	3.3	10.0	1.2
3000-3800	287.88	302.72	318.88	328.78	338.73	-188.83	-83.78	-82.08	-33.33	10.42	3.8	10.2	2.3
3800-4000	281.02	283.48	308.88	320.80	327.78	-220.88	-83.33	-80.00	-27.08	18.88	4.2	7.0	3.1
4000-4800	243.38	288.18	301.88	313.28	320.04	-218.81	-78.87	-82.08	-20.83	33.33	3.8	6.3	8.4
4800-5000	238.40	278.88	284.88	308.38	313.18	-183.08	-72.91	-48.83	-18.88	80.00	8.1	8.8	8.3
5000-8000	230.30	280.38	283.88	288.38	304.38	-217.31	-88.87	-43.78	-22.81	88.28	11.0	18.4	10.8
8000-7000	221.78	237.41	288.88	281.88	280.01	-277.08	-88.83	-43.78	-20.08	84.83	14.7	17.7	12.2
7000-6000	213.80	218.80	283.10	288.08	278.88	-282.38	-88.74	-38.88	-18.88	73.30	14.1	18.3	11.8
6000-5000	208.80	208.80	238.80	258.08	284.18	-280.00	-88.71	-38.88	-18.88	88.82	12.4	18.3	12.4
5000-10000	188.88	201.20	218.70	242.80	281.10	-204.88	-88.82	-30.07	-13.41	38.87	7.0	12.8	8.3
10000-11000	182.10	184.10	208.80	231.40	240.70	-183.28	-88.77	-23.44	-13.41	87.38	7.3	8.4	12.8
11000-12000	188.80	187.10	188.80	220.40	228.70	-148.74	-80.00	-23.30	-18.88	80.00	4.2	7.0	10.8
12000-13000	178.10	180.71	188.10	210.00	218.10	-128.88	-43.38	-20.08	-18.88	40.10	3.8	8.4	8.4
13000-14000	172.70	174.20	178.10	200.81	208.70	-103.28	-38.87	-20.08	-18.88	33.33	1.8	4.8	8.0
14000-18000	167.00	168.40	172.40	181.40	188.43	-88.81	-33.33	-20.08	-18.88	28.88	1.8	3.8	8.4
18000-18000	181.80	182.80	188.80	182.80	180.80	-88.81	-30.07	-18.82	-13.41	20.08	1.3	3.8	8.8
18000-17000	188.80	187.80	181.20	174.80	183.88	-78.01	-28.04	-17.88	-13.41	11.78	0.7	1.8	8.3
17000-18000	181.10	182.30	188.40	188.77	178.30	-82.03	-28.01	-18.01	-13.88	12.03	0.8	1.3	3.8
18000-18000	148.80	148.80	180.10	188.80	187.80	-83.84	-23.88	-18.01	-13.88	8.04	0.4	1.2	4.8
18000-20000	140.80	141.80	144.80	182.20	188.80	-82.03	-22.03	-18.01	-13.88	0.00	0.0	0.7	2.8
20000-21000	138.20	137.30	138.80	148.00	182.80	-42.03	-20.00	-18.01	-13.88	2.03	0.1	0.0	3.1
21000-22000	131.80	132.80	138.30	140.20	148.80	-33.88	-20.00	-13.88	-13.88	-3.88	0.0	0.0	2.2
22000-23000	127.80	128.70	131.00	138.80	140.80	-31.88	-17.88	-13.88	-11.88	-8.84	0.0	0.0	1.3
23000-24000	122.80	124.10	128.80	130.10	134.70	-27.88	-18.01	-13.88	-11.88	-3.88	0.0	0.1	1.8
24000-28000	118.80	120.00	122.10	128.10	128.10	-27.88	-18.01	-13.88	-11.88	-2.03	0.0	0.0	2.0
28000-28000	118.08	118.10	118.10	120.73	124.00	-24.08	-18.01	-13.88	-11.88	-7.81	0.0	0.0	0.8
28000-27000	111.38	112.30	114.20	118.80	118.20	-21.88	-14.08	-12.03	-11.88	-7.87	0.0	0.0	0.8
27000-28000	107.10	108.20	110.20	112.30	114.80	-20.00	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.4
28000-28000	103.87	104.80	108.30	108.00	108.80	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.3
28000-30000	100.20	101.20	102.80	104.80	108.80	-18.01	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.3
30000-31000	88.80	87.80	88.80	101.10	102.20	-18.84	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
31000-32000	83.70	84.70	88.20	87.80	88.70	-14.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
32000-33000	80.00	81.10	82.70	84.80	88.20	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	88.84	87.80	88.30	80.70	81.30	-18.21	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	84.88	88.70	86.70	87.70	88.21	-18.01	-10.00	-10.00	-8.08	-7.87	0.0	0.0	0.0

SAN JUAN

WET-DRY TRANSITION

THICKNESS STATISTICS

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	5.4	187	340	482	19.2	98	295	482	99.0	1825	6191	15286	14.8	89	384	482
500-1000	0.1	197	197	197	0.7	98	492	689	2.5	98	6890	34680	0.1	197	197	197
1000-1500	0.7	197	394	492	1.3	98	886	1181	1.6	1142	3347	30303	0.3	591	640	689
1500-2000	0.7	295	295	787	3.4	98	591	1181	0.6	1673	4429	7579	0.0			
2000-2500	3.5	98	344	541	6.4	98	394	1102	3.7	157	3150	14712	0.6	394	837	984
2500-3000	3.5	98	394	689	6.4	98	492	807	6.9	364	3396	15840	1.0	197	886	2165
3000-3500	1.8	197	394	591	3.2	98	394	758	6.3	98	3347	7520	2.3	236	443	1890
3500-4000	2.0	197	344	591	2.9	98	394	591	6.4	98	1772	10577	3.1	118	591	1181
4000-4500	2.3	167	344	551	4.5	118	394	787	5.7	98	886	5551	3.4	98	443	787
4500-5000	2.3	98	246	591	5.2	98	295	709	8.7	98	2067	30250	5.4	197	394	1004
5000-6000	9.6	98	394	591	11.4	98	295	787	16.3	98	1575	29502	7.4	98	394	1181
6000-7000	13.0	197	394	571	15.3	98	295	689	21.7	98	2165	28577	8.2	98	394	896
7000-8000	14.0	98	295	492	18.8	98	197	591	25.5	98	2264	27790	11.2	98	443	1083
8000-9000	12.7	98	295	394	15.7	98	197	492	26.1	98	3347	26904	10.5	197	492	1112
9000-10000	7.3	98	295	394	12.1	98	197	394	18.9	98	2658	25723	9.3	98	394	876
10000-11000	6.6	98	197	394	10.9	98	197	394	21.0	98	3937	24837	7.9	98	394	1024
11000-12000	3.9	98	197	295	7.0	98	197	443	10.5	98	2953	23754	7.7	98	394	884
12000-13000	3.4	98	197	197	5.0	98	148	295	10.8	197	2559	22671	6.7	98	443	984
13000-14000	1.9	98	148	295	5.0	98	197	394	11.8	98	4085	21687	6.6	98	394	876
14000-15000	2.2	98	98	295	3.4	98	98	197	8.0	98	3248	20703	7.0	98	591	1083
15000-16000	1.5	98	98	285	2.9	98	98	197	7.7	98	3871	19718	4.4	98	525	958
16000-17000	0.7	131	164	164	1.7	108	164	279	6.6	328	4265	18832	4.2	164	492	820
17000-18000	0.7	164	164	164	1.7	164	164	164	5.4	509	4101	17717	3.9	164	492	984
18000-19000	0.4	164	164	164	0.4	164	164	328	7.9	656	15912	16569	6.3	164	328	820
19000-20000	0.1	164	164	164	0.6	164	164	328	2.9	295	14928	15551	3.5	164	328	722

0000Z

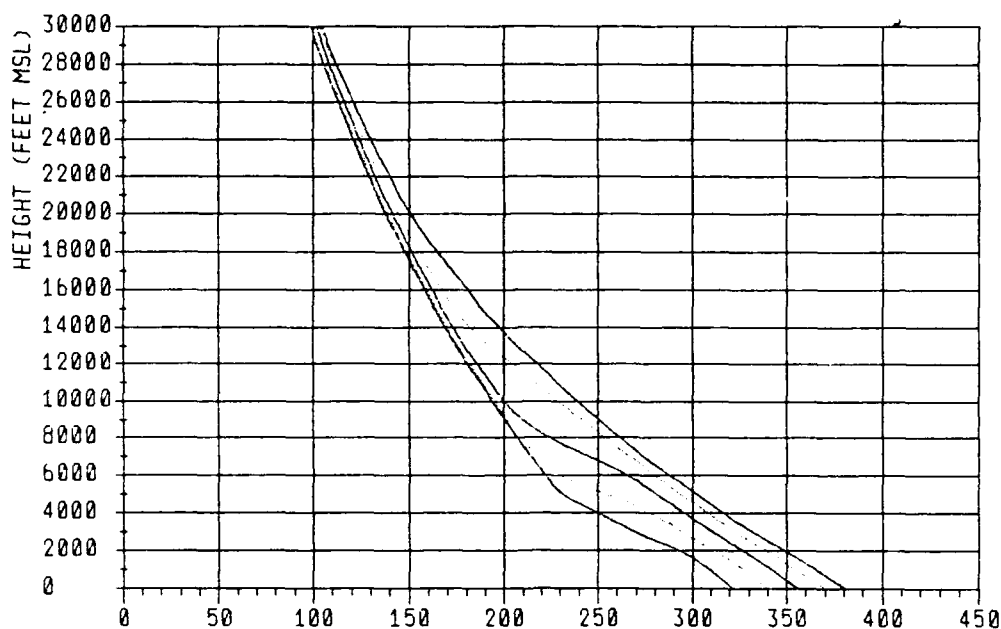
BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	7.9	98	295	482	20.1	98	384	492	96.5	1567	6289	34778	25.0	187	384	482
500-1000	0.4	197	197	394	1.3	98	98	394	6.1	610	4232	15889	0.6	886	935	1280
1000-1500	0.7	98	591	886	0.9	98	443	1280	2.2	98	3839	34070	0.6	98	886	1083
1500-2000	1.3	98	394	886	2.2	98	492	1476	1.0	98	3839	33495	0.3	295	591	886
2000-2500	1.9	98	295	551	3.8	98	492	925	2.3	1437	4232	15403	0.1	591	591	591
2500-3000	1.9	98	295	591	7.1	98	591	1083	4.5	98	2264	8228	0.9	98	344	886
3000-3500	2.8	197	295	492	4.5	98	394	787	6.4	98	1772	8543	1.7	98	541	1575
3500-4000	2.6	197	295	591	3.6	98	394	689	7.0	98	1919	6545	1.7	98	492	1181
4000-4500	2.6	98	344	591	4.1	98	295	689	5.7	98	787	9055	3.8	98	640	1102
4500-5000	3.6	98	295	531	6.3	98	197	620	7.7	98	2018	30299	4.5	128	394	787
5000-6000	9.6	98	295	492	14.4	98	295	689	18.8	98	2362	29561	8.0	98	492	974
6000-7000	12.4	98	295	591	14.5	98	295	591	19.2	98	2658	28774	9.7	98	492	1083
7000-8000	10.8	98	295	492	16.3	98	295	591	24.0	98	2953	27691	7.1	98	492	1083
8000-9000	11.3	98	295	492	16.0	98	295	591	23.1	98	4527	27002	9.0	98	492	1201
9000-10000	5.8	98	197	394	9.2	98	197	394	16.4	98	2264	25919	6.4	98	394	955
10000-11000	6.7	98	197	394	7.8	98	197	394	15.7	98	3248	24718	8.7	98	492	984
11000-12000	3.8	98	197	394	6.8	98	197	394	12.9	98	1969	23754	7.8	98	394	965
12000-13000	3.5	98	98	295	5.7	98	197	394	11.5	98	3790	22573	7.3	98	394	787
13000-14000	1.6	98	197	276	4.1	98	148	295	9.0	98	2067	21687	5.4	98	394	1181
14000-15000	1.9	98	98	197	3.2	98	98	295	6.8	98	4494	20604	4.7	98	394	846
15000-16000	1.3	98	98	197	3.6	98	197	295	8.0	98	6922	19718	5.5	197	394	915
16000-17000	0.7	98	164	164	1.9	131	164	315	6.0	157	15174	18832	4.7	144	492	1083
17000-18000	0.6	164	164	164	1.3	164	164	164	4.8	328	4839	17766	2.2	164	328	722
18000-19000	0.4	164	164	164	1.2	164	164	164	6.1	656	15994	16651	4.4	164	328	656
19000-20000	0.0				0.7	164	164	164	2.2	279	4593	15420	2.5	328	328	820

1200Z

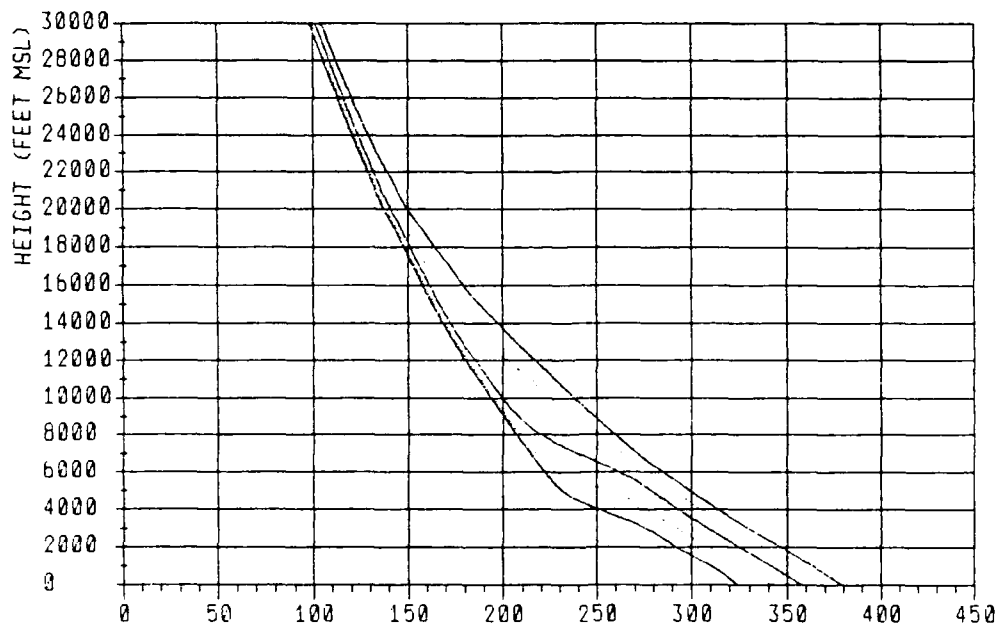
FIGURE B-6-2-D

B-95

N PERCENTILES



N (N-Units) 0000Z



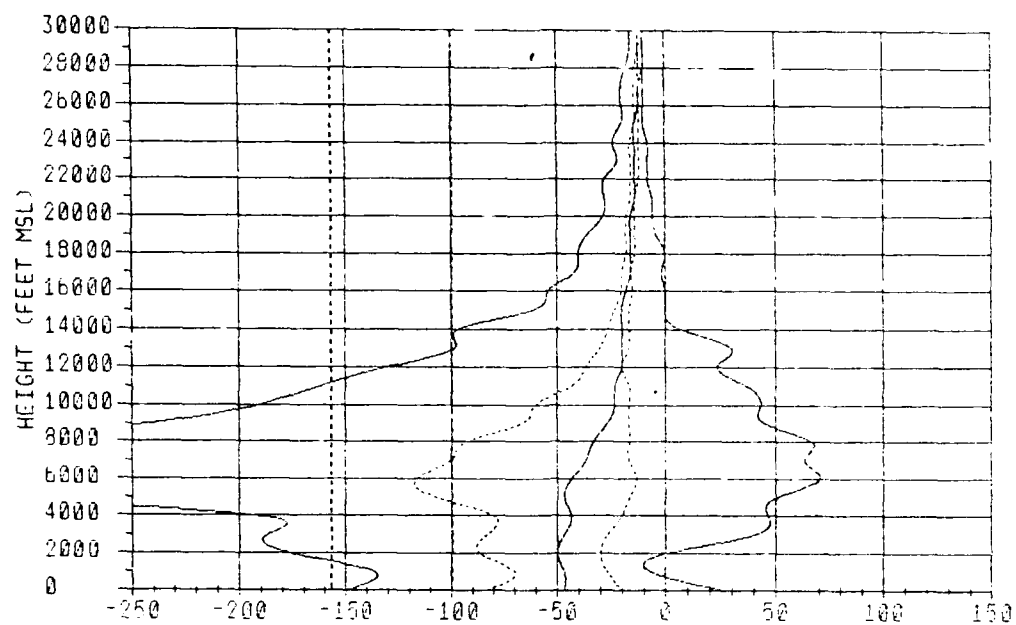
N (N-Units) 1200Z

FIGURE B-6-3-A

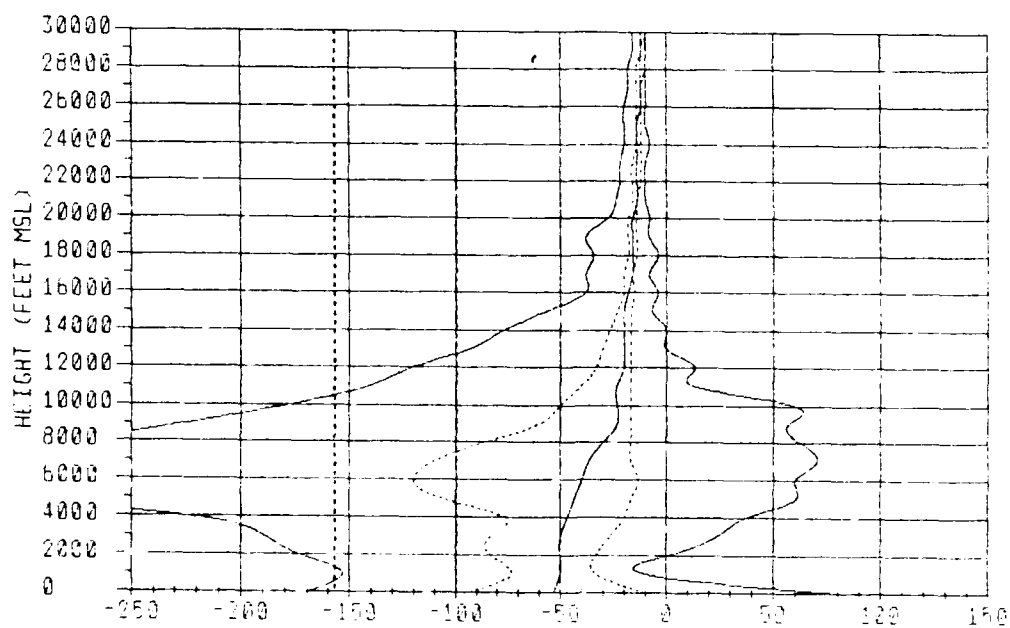
SAN JUAN

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-6-3-B

B-97

SAN JUAN

DRY SEASON

THICKNESS STATISTICS

BASE FT. MBL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	3.6	89	384	482	13.6	98	384	561	99.1	1959	5458	10119	10.4	98	384	482
500-1000	0.3	98	98	394	0.4	98	492	886	1.4	98	5709	24279	0.3	98	591	886
1000-1500	1.0	108	394	768	1.5	98	492	1122	1.5	98	3937	15217	0.7	98	591	787
1500-2000	0.6	197	344	394	3.2	98	591	1142	1.8	197	3051	8563	0.4	98	492	591
2000-2500	2.4	197	394	689	4.5	98	492	984	2.6	98	2854	4299	0.8	98	489	1270
2500-3000	2.7	98	394	600	6.9	98	492	886	6.9	98	2116	4444	1.8	98	489	1457
3000-3500	2.2	236	295	591	4.4	98	394	787	5.9	98	2165	10059	1.9	98	443	787
3500-4000	3.1	197	344	561	4.0	98	394	689	7.0	98	1870	5590	4.1	98	443	1378
4000-4500	2.8	197	295	591	6.3	98	394	787	7.0	98	984	4478	3.4	98	541	974
4500-5000	5.1	98	295	591	8.3	98	197	689	11.4	98	1378	30250	4.0	98	394	1033
5000-6000	16.6	138	295	591	18.7	98	197	591	23.1	98	2264	29660	10.8	98	492	1280
6000-7000	16.3	98	295	492	19.8	98	295	591	27.8	295	7333	28872	7.2	98	591	1083
7000-8000	14.5	98	295	492	16.6	98	197	591	23.3	98	6988	27888	7.1	98	591	1181
8000-9000	13.0	98	295	394	16.1	98	197	492	26.3	197	26116	26904	8.2	98	591	1181
9000-10000	7.0	98	295	394	10.5	98	197	492	15.3	295	25181	25919	5.6	98	492	984
10000-11000	6.2	98	197	394	9.8	98	197	394	17.0	197	13484	24935	6.4	98	394	1260
11000-12000	4.4	98	197	394	5.9	98	197	295	10.6	492	23065	23852	4.3	98	492	1083
12000-13000	2.8	98	197	295	4.0	98	98	295	6.9	98	4004	22888	2.3	98	591	1201
13000-14000	1.8	98	197	295	3.4	98	148	295	5.3	98	21096	21884	2.8	98	591	1142
14000-15000	1.4	98	197	295	2.2	98	98	217	4.3	492	20210	20801	1.1	98	246	994
15000-16000	0.3	98	98	197	1.3	98	98	226	2.8	98	5364	19917	1.8	98	394	797
16000-17000	0.2	131	148	164	0.7	98	164	328	2.2	420	7054	18839	1.6	282	456	820
17000-18000	0.1	164	164	164	0.7	164	164	328	1.7	459	17225	17881	1.3	328	492	820
18000-19000	0.1	164	164	164	0.3	164	164	164	2.6	1345	16076	16897	2.3	246	492	820
19000-20000	0.0				0.0				1.2	1362	15174	15748	0.5	164	492	456

0000Z

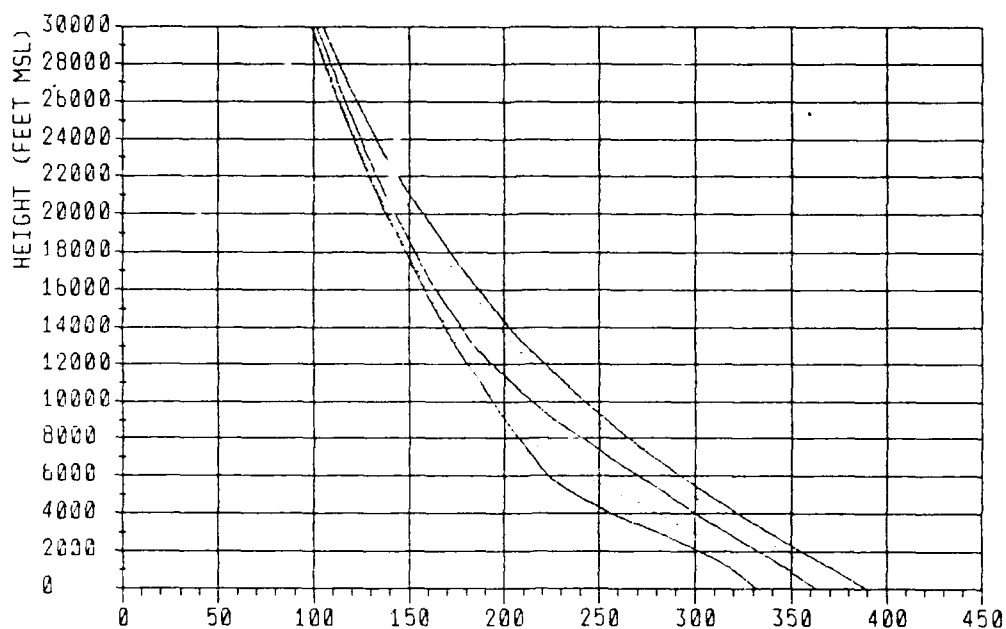
BASE FT. MBL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	6.2	89	285	482	19.1	98	384	591	97.3	1176	5403	9641	23.5	187	384	482
500-1000	0.3	197	295	1083	1.5	98	197	1142	5.4	98	3888	9203	0.6	98	98	591
1000-1500	1.2	236	492	689	1.2	98	492	984	2.4	98	4232	17402	0.5	98	197	1181
1500-2000	1.2	197	394	650	3.8	98	492	886	1.9	98	3347	6653	0.3	295	591	886
2000-2500	1.4	197	394	768	4.5	98	492	984	3.1	98	3740	25276	0.9	98	492	886
2500-3000	2.5	197	295	620	6.7	98	394	886	6.4	98	3445	7874	1.2	197	689	1132
3000-3500	2.0	98	295	591	3.7	98	394	778	6.7	98	2412	5216	1.3	295	492	1033
3500-4000	3.2	197	394	591	3.9	98	394	787	5.4	98	2362	11309	2.1	197	591	1201
4000-4500	3.7	197	394	591	5.2	98	197	591	5.8	98	1329	31028	2.7	492	689	1014
4500-5000	3.4	98	295	531	6.8	98	295	640	7.8	98	1772	30290	3.5	177	394	1102
5000-6000	17.4	197	295	591	18.9	98	295	659	23.4	98	1870	29561	8.6	98	492	1083
6000-7000	18.8	197	295	492	20.1	98	197	492	28.9	98	16306	28872	8.5	98	492	1083
7000-8000	16.6	197	295	492	17.4	98	197	492	29.3	98	27199	27986	7.8	98	492	1280
8000-9000	12.2	98	295	394	15.7	98	197	394	23.9	295	26116	27002	7.9	197	394	1280
9000-10000	6.5	98	295	394	9.0	98	197	394	14.8	98	25132	25919	5.8	98	394	984
10000-11000	5.7	98	197	394	8.1	98	197	394	13.4	98	15027	24935	4.6	98	492	1240
11000-12000	3.6	98	197	305	4.7	98	98	394	8.7	98	23114	23961	3.3	98	394	945
12000-13000	1.8	98	197	295	4.2	98	197	315	6.5	98	11221	22770	2.1	98	394	915
13000-14000	1.4	98	98	236	2.5	98	197	295	4.8	148	21146	21884	2.5	167	394	1014
14000-15000	1.1	98	197	295	2.1	98	98	295	3.6	217	20161	20801	1.4	98	344	945
15000-16000	0.8	98	98	197	1.2	98	98	157	2.0	1804	19226	19915	0.8	98	804	1312
16000-17000	0.0				0.7	164	164	328	1.7	1280	6431	18931	1.1	190	492	892
17000-18000	0.0				0.2	328	328	328	1.4	262	17225	17881	1.3	164	328	738
18000-19000	0.0				0.1	164	164	164	1.5	2051	16240	16897	1.1	164	492	456
19000-20000	0.0				0.1	164	164	164	1.0	2346	15092	15732	0.5	328	492	820

1200Z

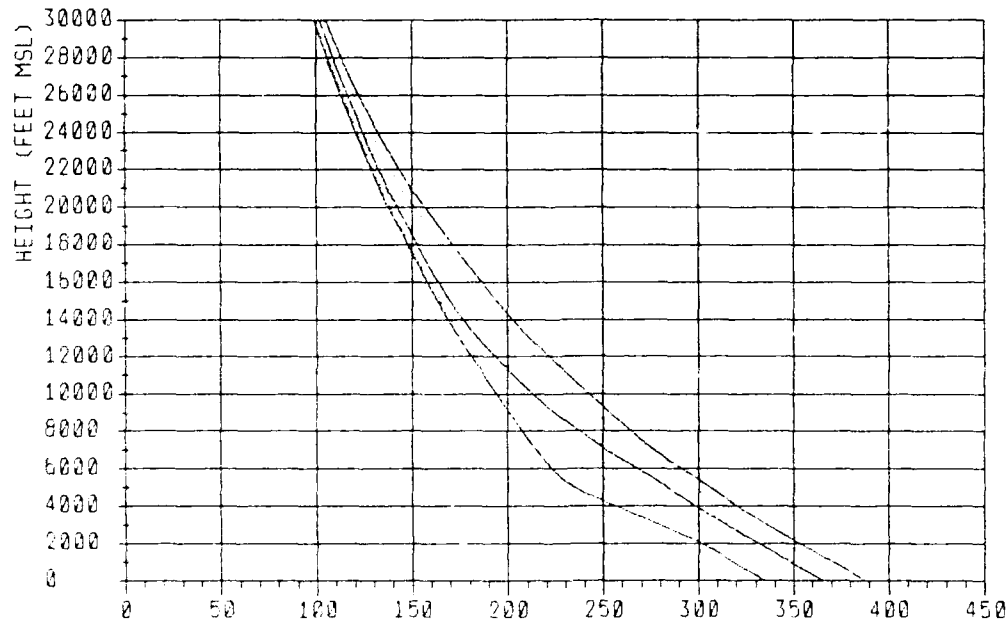
FIGURE B-6-3-D

B-99

N PERCENTILES



N (N-Units) 0000Z

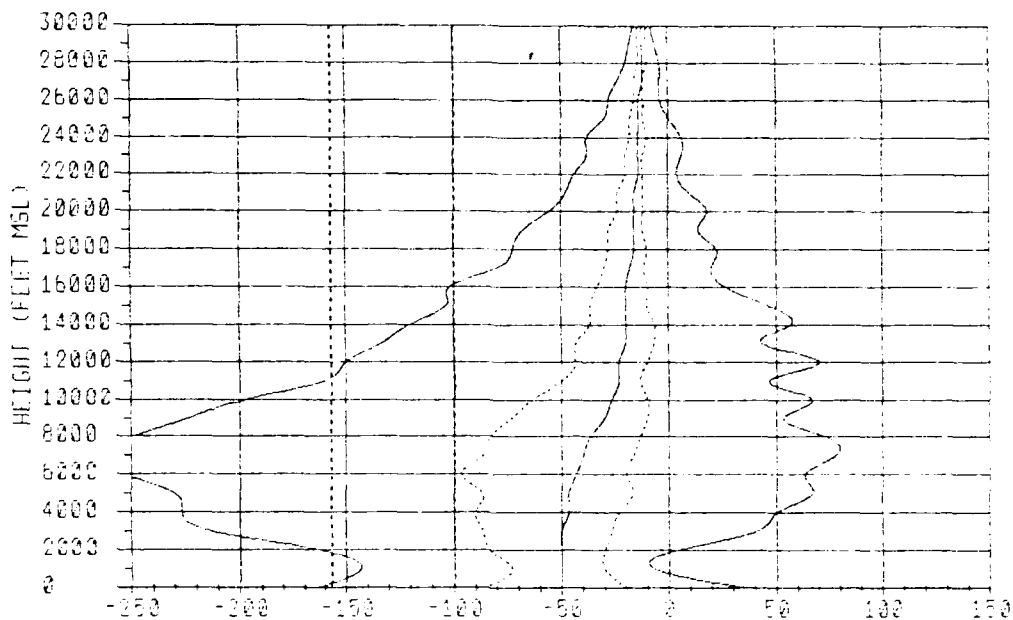


N (N-Units) 1200Z

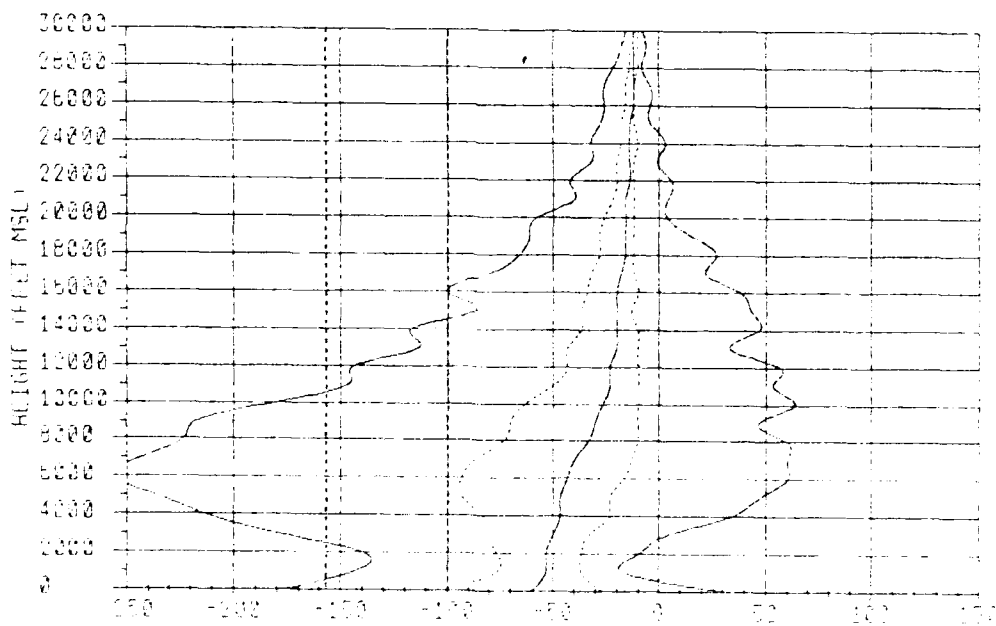
FIGURE B-6-4-A

B-100

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-6-4-B

THICKNESS STATISTICS

BASE FT. MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	4.8	89	295	443	16.4	98	384	522	98.7	1565	5900	15443	18.6	89	384	522
500-1000	0.3	197	394	591	0.9	98	591	787	2.7	1083	6299	34581	0.3	295	1033	1772
1000-1500	0.6	295	394	492	2.2	98	591	1181	1.2	98	7185	33991	0.3	689	935	1181
1500-2000	1.3	98	295	492	3.5	98	591	787	2.9	177	3051	33400	0.7	394	394	2165
2000-2500	2.2	197	295	728	3.7	98	689	1112	3.5	541	3593	10236	0.3	98	197	787
2500-3000	1.9	98	394	965	4.3	98	492	1161	4.8	98	1969	10826	2.4	98	738	1112
3000-3500	3.0	217	394	768	3.3	98	591	1161	5.3	98	1575	4369	1.6	157	492	1043
3500-4000	3.2	98	394	591	4.6	98	295	984	6.2	98	1870	17028	2.4	98	492	1280
4000-4500	3.3	138	394	610	5.8	98	492	768	5.9	98	1476	9055	4.0	276	591	1289
4500-5000	4.5	197	295	492	7.5	98	246	591	11.8	246	2116	30250	2.9	295	394	1152
5000-6000	8.4	197	344	492	13.3	98	295	787	18.3	98	2510	29758	8.1	98	443	984
6000-7000	9.4	98	295	492	15.0	98	295	591	21.0	98	2264	28577	9.7	197	591	984
7000-8000	10.1	197	295	492	15.0	98	295	591	21.0	98	2756	27691	8.6	98	394	984
8000-9000	10.5	98	295	394	14.1	98	197	492	22.3	98	2461	26805	9.2	197	492	1378
9000-10000	7.8	98	197	394	11.4	98	295	394	19.2	98	1772	25723	8.6	98	443	984
10000-11000	8.6	98	197	354	11.1	98	197	394	21.9	344	3543	24837	9.5	197	591	1181
11000-12000	5.6	98	197	295	9.1	98	98	305	13.8	98	1280	23557	9.2	98	492	1083
12000-13000	4.8	98	197	295	7.3	98	197	295	15.7	98	3543	22671	10.2	98	492	1083
13000-14000	3.7	98	197	295	6.2	98	197	295	13.1	98	1969	20998	8.4	98	591	1122
14000-15000	2.9	98	197	197	4.5	98	98	295	13.3	98	2051	20407	9.7	98	492	1083
15000-16000	2.0	98	148	295	4.2	98	197	197	11.2	197	3511	19620	5.8	197	427	1004
16000-17000	0.7	98	164	328	2.9	102	164	230	8.4	492	5495	10872	7.5	164	492	521
17000-18000	0.9	164	164	164	2.0	164	164	328	7.7	492	3281	17881	5.1	279	492	984
18000-19000	0.6	164	164	164	2.3	164	164	213	12.3	394	6233	16503	7.8	164	410	656
19000-20000	0.1	164	164	164	0.7	164	164	164	4.6	361	7054	15584	5.4	164	492	673

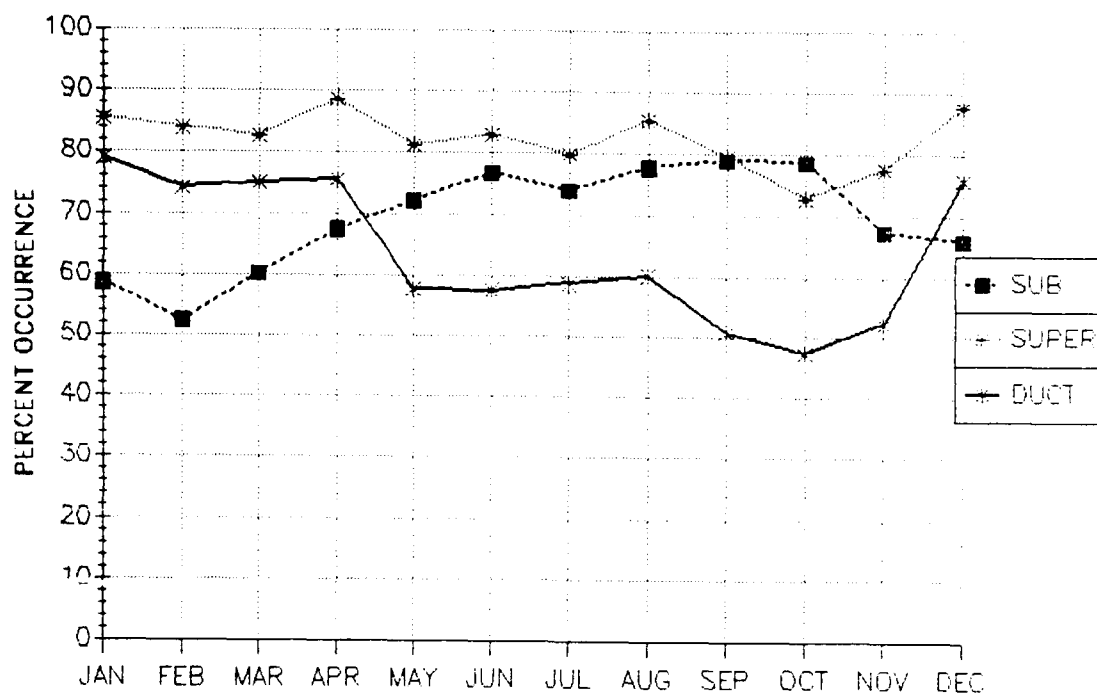
0000Z

BASE FT. MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLRS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	7.6	89	384	482	26.9	98	384	492	97.9	1968	6388	18593	10.7	197	384	482
500-1000	0.3	197	344	492	1.3	98	197	1476	4.6	886	5315	19931	0.0			
1000-1500	1.1	98	394	591	2.3	98	492	984	1.8	748	4921	15391	0.3	591	1034	1476
1500-2000	0.7	295	295	394	2.1	98	394	1161	1.8	98	4724	13681	0.0			
2000-2500	0.7	295	394	394	3.5	98	492	1161	2.4	413	3839	10132	0.4	295	591	489
2500-3000	1.5	217	492	669	4.1	98	492	984	4.6	344	2461	7824	1.0	591	591	886
3000-3500	1.7	226	295	591	3.1	98	295	856	4.4	354	2067	20125	1.3	98	394	787
3500-4000	3.4	98	295	61	4.2	98	295	787	4.9	217	2362	31333	1.8	98	492	1220
4000-4500	2.5	197	394	689	5.2	98	492	689	5.8	98	984	21477	3.1	226	640	1024
4500-5000	3.7	167	295	591	7.0	98	197	787	8.3	98	1969	23688	3.2	98	295	1220
5000-6000	9.3	98	295	591	13.5	98	295	689	18.8	98	2904	29315	7.0	197	394	1230
6000-7000	8.6	197	295	492	13.5	98	295	669	19.5	98	2658	28675	7.5	98	443	915
7000-8000	7.9	98	295	492	12.0	98	295	591	20.0	98	2559	27691	9.4	128	591	1152
8000-9000	10.3	98	295	394	13.6	98	295	492	23.5	98	2362	26608	11.0	98	394	1280
9000-10000	6.8	98	295	394	9.4	98	197	482	16.3	98	3051	25723	9.4	98	492	984
10000-11000	6.2	98	197	394	12.1	98	197	394	21.5	98	2067	24738	10.1	98	492	1083
11000-12000	4.9	98	197	295	7.6	98	197	394	16.0	98	2018	23656	10.0	98	394	1171
12000-13000	4.1	98	197	295	6.5	98	197	295	14.5	98	4101	22661	7.9	98	492	984
13000-14000	3.7	98	98	295	5.8	98	197	295	12.1	98	2658	21707	8.3	98	492	1083
14000-15000	2.0	98	98	197	4.5	98	98	295	13.4	98	1673	20604	8.5	98	394	807
15000-16000	1.5	98	98	197	2.3	98	98	295	8.6	98	2674	19521	7.9	108	492	853
16000-17000	1.7	131	164	328	3.4	98	164	328	11.1	230	4593	18701	7.2	177	492	984
17000-18000	0.7	164	164	164	1.4	164	164	312	7.6	492	9022	17717	7.1	197	492	820
18000-19000	0.4	164	164	164	1.1	164	164	328	9.7	328	15912	16897	6.2	164	492	820
19000-20000	0.1	164	164	164	0.8	164	164	164	6.8	984	15092	15584	5.1	164	328	656

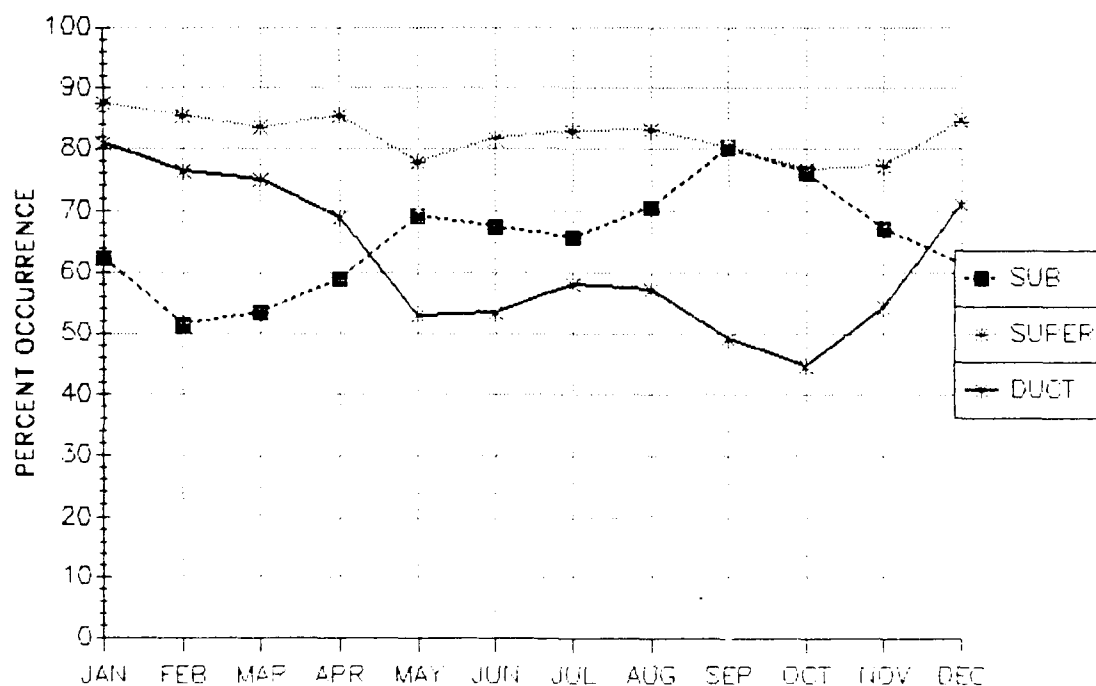
1200Z

FIGURE B-6-4-D

AP PERCENT OCCURRENCE FREQUENCY



0000Z



1200Z

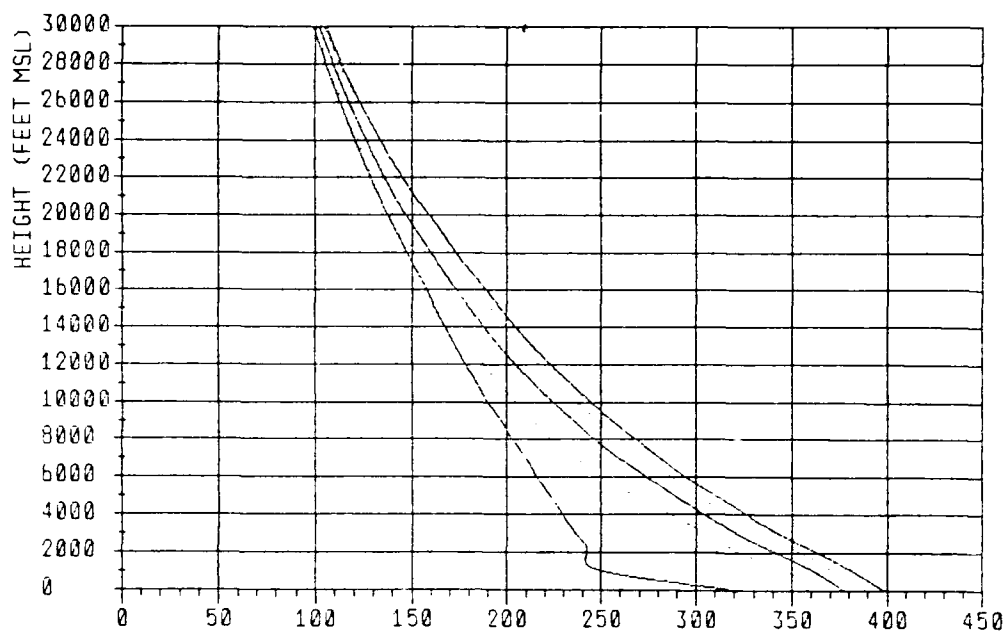
FIGURE B-6-5

B-104

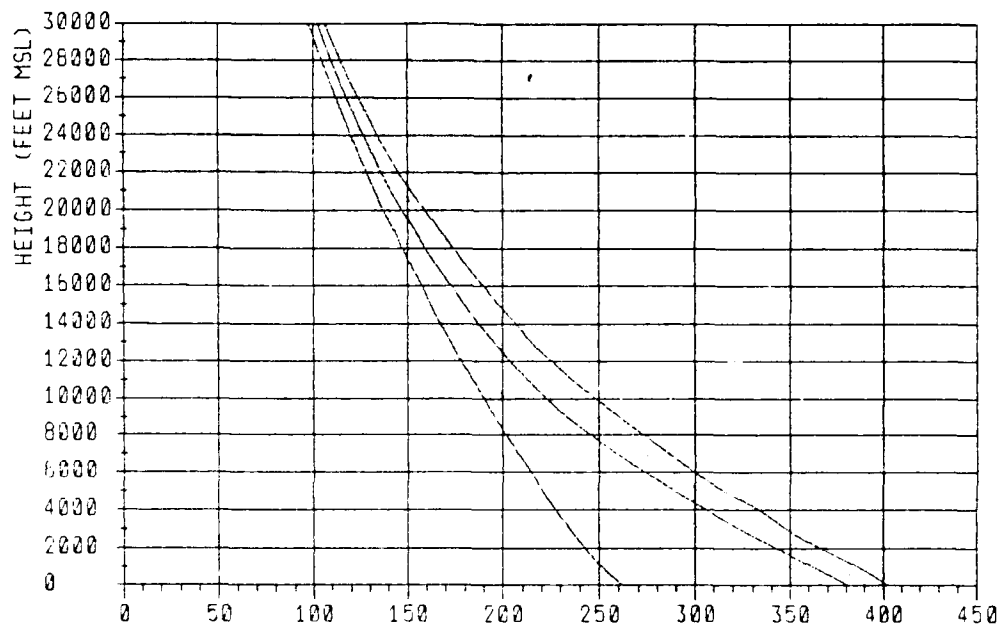
BELIZE

WET SEASON

N PERCENTILES



N (N-Units) 0000Z

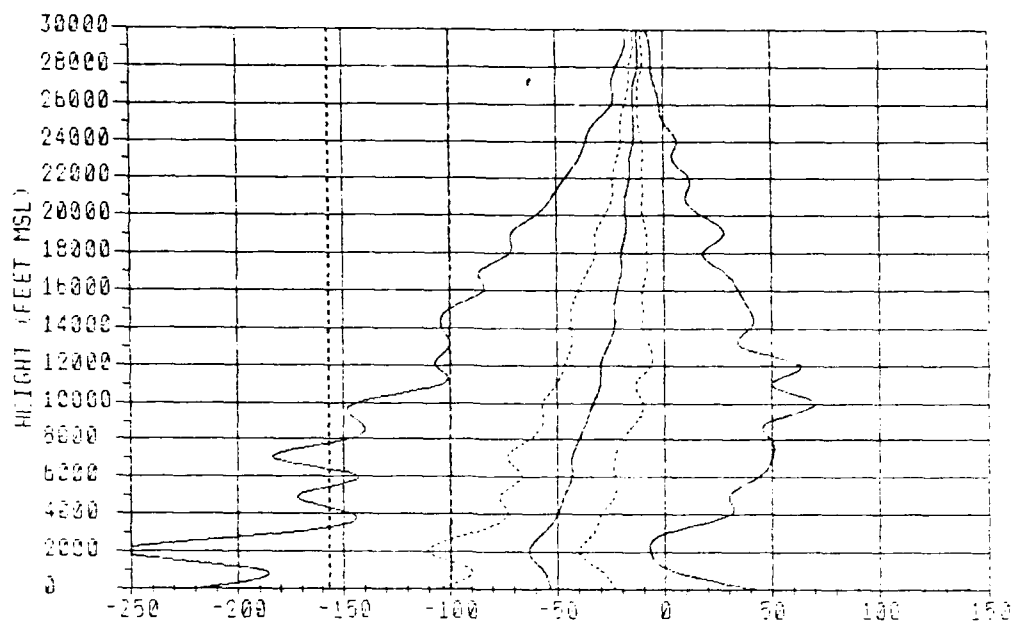


N (N-Units) 1200Z

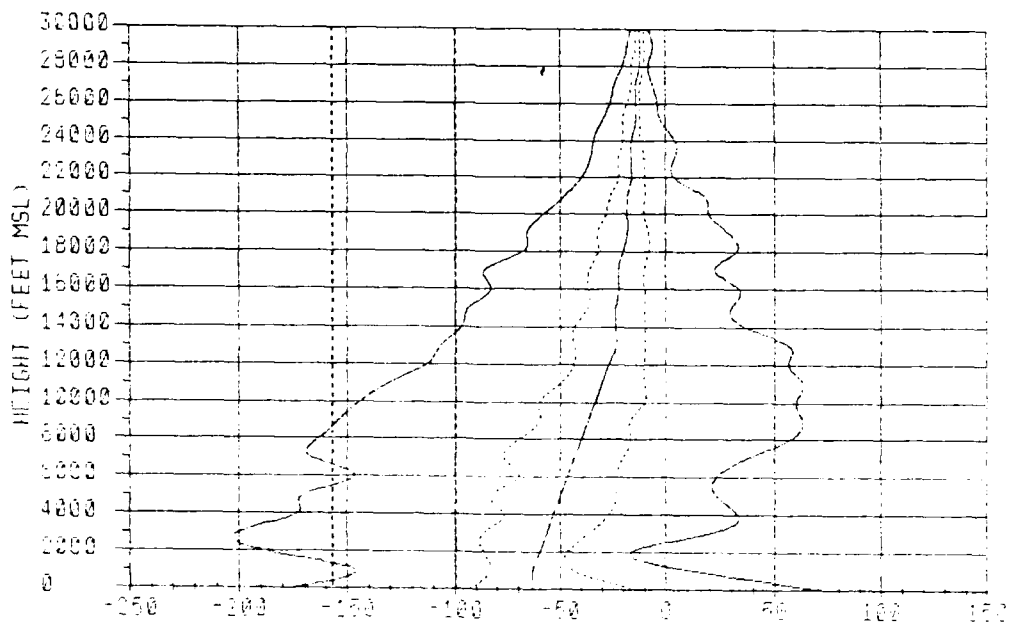
FIGURE B-7-1-A

B-105

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-7-1-B

BELIZE

WET SEASON

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	95%		10%	50%	90%	95%		SRLR	SUB
5FC-500	260.69	371.75	383.75	393.88	401.29	-261.12	-150.00	-60.41	-16.66	98.66	16.7	32.2	11.7
500-1000	258.05	362.18	373.69	383.69	383.80	-121.33	-75.00	-60.00	-25.00	0.00	0.8	3.6	1.3
1000-1500	251.60	353.75	366.00	375.59	384.67	-169.59	-77.03	-62.08	-27.08	18.58	2.8	5.9	2.7
1500-2000	247.66	342.75	358.00	367.75	375.66	-217.39	-108.33	-68.33	-33.33	-12.50	6.7	14.6	1.6
2000-2500	244.10	330.52	347.69	357.67	364.93	-265.16	-110.41	-62.50	-39.58	-16.75	6.3	15.1	0.9
2500-3000	240.23	318.75	335.75	347.17	354.80	-209.77	-108.25	-60.41	-39.58	-2.73	6.1	16.0	1.4
3000-3500	236.74	307.81	324.25	335.75	342.98	-187.91	-95.63	-58.33	-35.41	-6.25	4.2	11.4	1.1
3500-4000	233.27	298.75	315.25	326.69	334.70	-156.77	-81.25	-54.16	-31.25	40.10	2.8	5.4	2.9
4000-4500	229.70	290.50	307.19	316.56	327.20	-150.00	-77.08	-52.08	-28.16	16.66	1.6	4.3	3.1
4500-5000	226.73	282.38	299.69	311.25	319.68	-146.54	-72.81	-50.00	-27.08	27.87	2.7	6.3	4.7
5000-6000	220.70	287.00	297.75	300.19	309.97	-156.25	-72.91	-45.83	-23.30	35.39	3.4	6.1	6.6
6000-7000	214.10	272.88	285.38	288.38	292.60	-139.58	-68.75	-43.75	-23.30	38.14	2.9	7.6	6.3
7000-8000	208.49	258.00	259.00	272.19	279.94	-176.21	-70.43	-41.66	-22.91	43.38	5.9	9.5	6.3
8000-9000	201.00	222.70	245.60	256.75	266.67	-149.64	-62.50	-37.50	-18.62	50.00	4.3	7.6	11.2
9000-10000	194.90	212.20	233.50	246.10	253.60	-130.01	-58.64	-33.33	-13.28	61.65	3.4	5.6	11.9
10000-11000	188.22	203.49	222.70	235.10	242.70	-136.72	-58.64	-33.33	-13.28	60.00	3.4	6.5	15.8
11000-12000	182.17	194.60	212.60	224.67	231.60	-100.88	-80.00	-29.98	-13.28	60.00	1.6	3.6	11.2
12000-13000	176.50	188.10	203.40	214.60	220.70	-103.38	-43.58	-26.69	-6.64	63.28	1.4	4.0	13.9
13000-14000	170.92	179.60	194.50	206.07	211.73	-108.64	-43.43	-26.69	-9.80	38.71	1.6	4.3	15.0
14000-15000	165.31	171.70	186.20	197.50	202.30	-100.00	-43.38	-23.44	-10.03	43.38	1.6	3.3	12.7
15000-16000	160.11	165.60	178.40	189.60	194.10	-103.37	-43.23	-23.30	-10.03	33.33	2.2	4.5	12.2
16000-17000	155.16	160.10	171.30	181.90	186.60	-89.66	-37.98	-22.03	-7.87	34.01	0.9	2.7	13.2
17000-18000	150.21	154.30	164.30	173.73	178.00	-67.96	-34.06	-20.00	-7.87	25.83	0.2	2.2	12.2
18000-19000	144.90	148.58	157.45	166.30	170.55	-73.98	-32.03	-20.00	-6.02	23.98	0.9	1.8	16.2
19000-20000	140.30	143.30	150.60	158.90	162.90	-64.90	-31.95	-20.00	-10.00	29.04	0.6	1.5	9.9
20000-21000	135.84	138.70	144.70	152.50	156.10	-55.11	-26.01	-17.96	-10.00	19.01	0.4	0.6	8.7
21000-22000	131.40	134.10	139.50	146.30	149.60	-46.04	-23.98	-16.01	-10.00	7.87	0.4	0.6	6.6
22000-23000	127.28	129.60	134.40	140.30	143.50	-43.39	-23.98	-16.01	-10.00	10.00	0.0	0.2	6.1
23000-24000	122.70	124.60	129.20	134.30	137.30	-40.00	-21.95	-16.01	-10.00	2.03	0.0	0.2	4.3
24000-25000	118.52	120.40	124.25	128.40	131.00	-36.01	-20.00	-14.09	-10.00	4.06	0.6	0.0	5.6
25000-26000	114.70	116.50	119.90	123.40	125.78	-27.96	-18.04	-13.98	-11.95	0.00	0.0	0.0	2.6
26000-27000	110.80	112.60	115.40	118.60	120.70	-23.96	-16.01	-13.98	-11.95	-3.98	0.0	0.0	0.9
27000-28000	106.80	108.30	111.00	114.00	115.90	-23.96	-16.01	-12.03	-11.95	-6.02	0.0	0.0	1.1
28000-29000	102.90	104.60	106.90	109.21	110.90	-18.06	-14.06	-12.03	-10.00	-6.02	0.0	0.0	0.2
29000-30000	99.80	101.20	103.20	105.30	106.70	-17.96	-13.98	-12.03	-10.00	-7.95	0.0	0.0	0.6
30000-31000	96.40	98.00	99.70	101.50	102.70	-16.01	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.0
31000-32000	92.80	94.70	96.30	98.00	99.90	-31.97	-12.03	-10.00	-10.00	-6.02	0.0	0.0	0.6
32000-33000	89.27	91.10	92.70	94.40	95.30	-13.96	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
33000-34000	85.70	88.00	89.30	90.70	91.40	-26.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	83.40	85.80	86.70	87.70	88.20	-27.96	-11.95	-10.00	-7.97	-7.97	0.0	0.0	0.0

0000Z

HGT FT MSL	N PERCENTILES				DNDR PERCENTILES				PERCENT DUCT		OCCURRENCE		
	1%	10%	50%	90%	95%	1%	10%	50%	90%	95%	SRLR	SUB	
5FC-500	311.15	375.37	397.06	395.50	402.08	-227.67	-114.58	-59.33	20.63	113.69	9.4	21.2	27.1
500-1000	253.18	364.75	378.75	387.80	395.06	-136.83	-87.50	-64.58	-37.50	16.66	1.2	3.6	3.1
1000-1500	253.63	355.54	367.11	377.50	384.73	-128.60	-83.33	-62.80	-43.75	16.66	1.0	3.9	2.0
1500-2000	249.30	346.37	357.69	367.59	374.97	-170.93	-83.33	-62.80	-48.63	22.46	2.9	7.2	2.2
2000-2500	245.13	334.75	348.00	357.67	364.25	-166.67	-89.58	-62.80	-48.63	-0.62	3.8	7.7	1.7
2500-3000	241.11	322.50	337.25	347.37	354.06	-191.66	-91.66	-60.41	-43.75	1.83	4.9	8.7	2.2
3000-3500	236.93	310.01	326.69	337.00	343.84	-167.50	-89.37	-58.33	-37.50	9.77	3.2	8.0	2.7
3500-4000	233.13	299.74	316.00	326.07	335.56	-169.58	-81.25	-56.25	-33.33	39.66	3.1	6.3	3.4
4000-4500	228.93	290.59	309.69	319.88	327.34	-169.00	-77.08	-54.16	-25.00	43.16	3.1	5.1	4.3
4500-5000	226.12	282.50	301.19	312.00	320.20	-165.04	-79.16	-50.00	-25.00	33.33	4.6	9.0	6.6
5000-6000	220.30	266.44	287.66	300.75	308.38	-154.16	-79.16	-50.00	-23.37	22.91	4.4	10.0	5.2
6000-7000	214.40	248.40	272.50	285.38	293.06	-152.00	-72.91	-45.83	-23.30	20.83	4.2	8.6	6.9
7000-8000	208.01	234.30	258.25	271.75	280.25	-159.45	-73.36	-41.66	-19.82	41.66	5.6	10.3	9.1
8000-9000	201.09	221.50	244.50	258.69	266.86	-166.66	-66.66	-37.50	-16.66	59.90	6.3	8.5	14.0
9000-10000	194.70	210.10	231.80	245.80	253.10	-139.97	-59.69	-33.33	-15.36	56.76	3.6	7.6	12.9
10000-11000	189.00	200.20	221.30	234.70	242.28	-148.93	-60.02	-30.07	-10.03	59.69	5.1	9.1	15.4
11000-12000	182.60	191.90	211.40	224.00	230.60	-116.66	-46.74	-29.95	-10.03	59.69	3.4	4.4	12.2
12000-13000	176.90	184.30	202.50	214.10	218.70	-118.33	-43.36	-26.69	-10.03	56.31	3.2	4.1	13.0
13000-14000	171.30	177.72	193.80	205.80	210.80	-108.64	-43.36	-26.66	-10.03	46.74	2.4	5.4	14.7
14000-15000	165.61	171.11	186.40	197.10	201.70	-93.36	-43.23	-23.30	-10.03	39.97	1.6	3.9	13.2
15000-16000	160.51	165.20	177.90	189.30	193.70	-69.67	-36.71	-23.30	-10.03	33.01	1.2	3.2	10.3
16000-17000	155.67	159.90	171.30	182.00	186.20	-61.21	-35.93	-22.03	-9.96	30.00	0.8	3.0	12.7
17000-18000	150.44	154.00	163.90	173.90	177.95	-61.07	-33.96	-20.00	-10.00	29.08	0.5	2.2	10.6
18000-19000	145.12	148.40	157.10	166.40	170.47	-70.00	-31.95	-20.00	-6.06	36.01	0.6	1.2	14.6
19000-20000	140.00	143.30	150.60	158.80	162.69	-60.00	-30.00	-16.04	-10.00	20.00	0.5	0.6	10.1
20000-21000	135.50	138.40	145.00	152.40	155.70	-57.96	-27.96	-17.96	-10.00	22.03	0.3	0.6	8.2
21000-22000	130.99	133.90	139.70	146.30	149.40	-47.96	-24.06	-17.96	-10.00	10.00	0.0	0.2	7.0
22000-23000	126.69	129.40	134.50	140.40	143.10	-40.00	-22.03	-16.01	-10.00	3.98	0.0	0.0	5.3
23000-24000	122.17	124.60	129.20	134.30	137.20	-32.03	-20.00	-16.01	-10.00	3.98	0.2	0.2	5.6
24000-25000	117.95	120.30	124.30	128.70	130.90	-36.01	-20.00	-15.94	-11.95	2.03	0.0	0.2	4.1
25000-26000	113.77	116.30	119.60	123.50	125.60	-27.96	-18.04	-13.98	-11.95	-2.03	0.0	0.0	1.9
26000-27000	109.90	112.90	115.30	118.70	120.70	-25.93	-16.01	-13.98	-11.95	-3.98	0.0	0.0	1.2
27000-28000	105.80	108.32	111.00	114.00	115.90	-22.03	-16.01	-12.03	-10.00	-7.97	0.0	0.0	1.4
28000-29000	101.36	104.70	106.90	109.30	110.90	-20.00	-14.06	-12.03	-10.00	-6.02	0.0	0.0	0.4
29000-30000	97.64	101.30	103.20	105.40	106.80	-17.96	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.2
30000-31000	94.12	98.00	99.70	101.60	102.70	-16.01	-12.23	-11.95	-10.00	-7.97	0.0	0.0	0.2
31000-32000	90.20	94.70	96.30	98.00	99.10	-35.94	-12.03	-11.95	-10.00	-6.02	0.2	0.0	0.6
32000-33000	86.40	91.10	92.80	94.50	95.40	-13.99	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
33000-34000	83.20	87.90	89.30	90.70	91.44	-27.96	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.64	85.70	86.70	87.80	89.20	-28.01	-10.00	-10.00	-7.97	-7.97	0.0	0.0	0.0

BELIZE

WET SEASON

THICKNESS STATISTICS

BASE FT MBL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
0FC-500	18.7	82	279	377	32.2	98	279	377	98.2	1165	4844	34975	11.7	180	279	377
500-1000	0.7	197	394	886	0.7	98	492	984	2.0	98	5708	34522	0.7	98	197	295
1000-1500	2.3	177	394	591	4.3	98	787	1319	4.0	98	5837	34089	1.8	118	394	650
1500-2000	5.6	197	394	591	11.4	98	394	1083	6.3	98	3442	33400	0.7	197	295	591
2000-2500	3.1	98	394	650	7.0	98	394	1181	10.1	925	7677	32829	0.5	98	295	591
2500-3000	4.5	98	394	689	9.4	98	394	1083	11.4	738	6348	32317	1.3	98	295	689
3000-3500	2.2	98	295	561	4.7	98	197	817	9.2	364	4085	27081	0.7	394	541	689
3500-4000	1.4	98	246	591	2.2	98	197	984	5.2	98	5266	15578	2.2	226	295	1280
4000-4500	1.1	98	246	394	2.9	98	394	719	3.8	98	4330	28642	2.0	98	492	827
4500-5000	2.3	138	295	748	4.1	98	394	846	4.5	650	6201	30349	2.9	98	787	1211
5000-6000	2.3	138	295	492	5.4	98	295	787	9.5	98	3740	29601	4.5	157	591	1280
6000-7000	2.7	98	295	571	5.4	98	394	591	9.5	98	4085	28311	4.5	167	492	1299
7000-8000	5.0	98	246	492	8.3	98	295	591	11.0	98	2559	13563	6.3	98	492	984
8000-9000	3.6	98	295	394	5.9	98	295	591	11.7	98	1575	11925	8.1	98	492	1181
9000-10000	3.1	98	197	413	4.1	98	148	394	12.1	98	1132	11394	8.1	98	492	1083
10000-11000	3.2	98	197	394	6.0	98	197	394	17.0	98	2854	24738	10.1	98	492	925
11000-12000	1.6	98	197	394	3.1	98	197	413	9.8	98	1919	23547	7.8	98	591	1280
12000-13000	1.4	98	98	197	3.8	98	197	394	12.1	98	3757	22740	10.0	98	394	1289
13000-14000	1.6	98	197	285	4.0	98	246	394	12.5	98	2264	21588	11.4	98	394	945
14000-15000	1.6	98	98	295	3.1	98	197	394	10.9	98	3347	20801	7.2	98	394	984
15000-16000	2.0	98	98	197	4.2	98	148	295	12.3	98	1903	19620	9.1	98	361	771
16000-17000	0.7	131	164	164	2.7	118	164	328	11.4	164	2297	18701	10.0	164	394	961
17000-18000	0.2	164	164	164	2.0	164	164	295	11.1	328	2789	17635	9.3	164	492	820
18000-19000	0.9	164	164	164	1.8	164	164	312	16.3	492	15912	16651	13.2	164	492	820
19000-20000	0.6	164	164	164	1.5	164	164	164	9.0	886	14928	15584	7.2	164	328	820

0000Z

BASE FT MBL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
0FC-500	9.4	82	279	433	21.2	98	279	512	97.6	1289	7070	34975	27.1	279	377	377
500-1000	0.2	492	492	492	0.9	98	394	984	4.1	98	3839	34581	1.2	98	394	1181
1000-1500	0.9	295	394	689	2.6	98	689	1476	2.7	98	8268	34109	0.5	295	492	886
1500-2000	2.7	98	394	748	4.9	98	443	1083	4.3	98	3150	33302	1.4	98	394	591
2000-2500	2.2	138	492	866	4.1	98	98	1220	4.8	98	4921	32908	0.9	98	492	787
2500-3000	3.2	98	394	787	4.9	98	443	1063	7.0	98	3051	30840	1.7	98	344	1152
3000-3500	1.7	108	394	679	4.4	98	197	945	5.6	98	3248	24607	1.2	394	394	1772
3500-4000	2.2	138	295	650	3.1	98	295	728	5.1	413	3740	31421	1.9	315	591	1260
4000-4500	2.4	98	394	640	2.9	98	591	699	4.3	98	1575	8743	2.2	98	492	728
4500-5000	3.4	108	295	394	6.8	98	295	787	9.8	98	4724	30250	4.2	98	295	1112
5000-6000	2.9	98	295	492	6.9	98	394	846	12.4	98	2756	29660	3.2	98	492	1240
6000-7000	4.2	98	295	433	6.8	98	492	886	8.6	98	2264	13921	5.2	98	344	984
7000-8000	4.4	98	197	295	7.3	98	246	591	15.7	98	2756	27652	7.1	98	394	984
8000-9000	5.9	98	197	394	7.4	98	295	492	14.6	98	2854	26412	11.7	197	394	1083
9000-10000	2.9	98	197	315	6.8	98	295	571	13.0	98	2559	25408	8.1	98	394	886
10000-11000	4.9	98	197	295	8.5	98	197	443	18.6	98	2362	24837	11.2	98	394	1240
11000-12000	3.0	98	197	295	3.7	98	197	394	12.4	98	2264	23360	8.6	98	394	1083
12000-13000	2.7	98	98	197	3.6	98	197	295	11.2	98	1772	22592	9.0	98	394	1024
13000-14000	2.4	98	98	197	4.9	98	197	295	14.0	98	1575	21402	11.8	98	295	965
14000-15000	1.5	98	98	197	3.6	98	197	276	13.0	98	2494	20407	9.1	98	394	1083
15000-16000	1.2	98	98	197	3.0	98	197	295	9.8	98	2625	19482	6.9	98	394	1083
16000-17000	0.7	164	164	164	2.7	121	164	213	10.3	279	3527	18586	10.2	164	459	820
17000-18000	0.5	164	164	164	2.0	164	164	164	9.6	492	3117	17717	7.6	164	492	820
18000-19000	0.8	164	164	164	1.2	164	164	164	13.9	492	4019	16618	12.0	164	328	820
19000-20000	0.5	164	164	164	0.5	164	164	328	8.9	738	15092	15748	7.8	164	328	820

1200Z

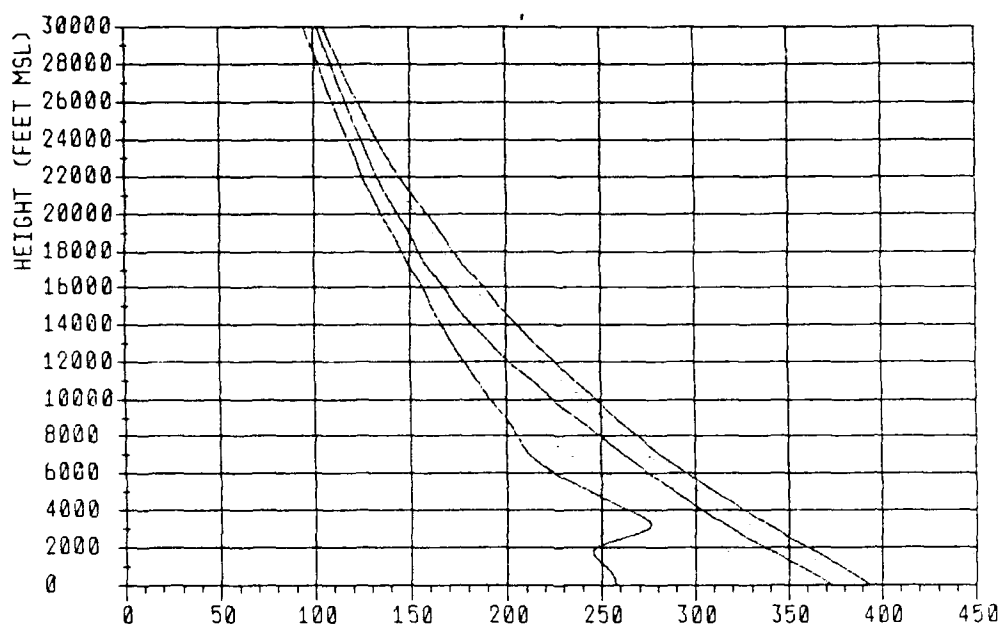
FIGURE B-7-1-D

B-108

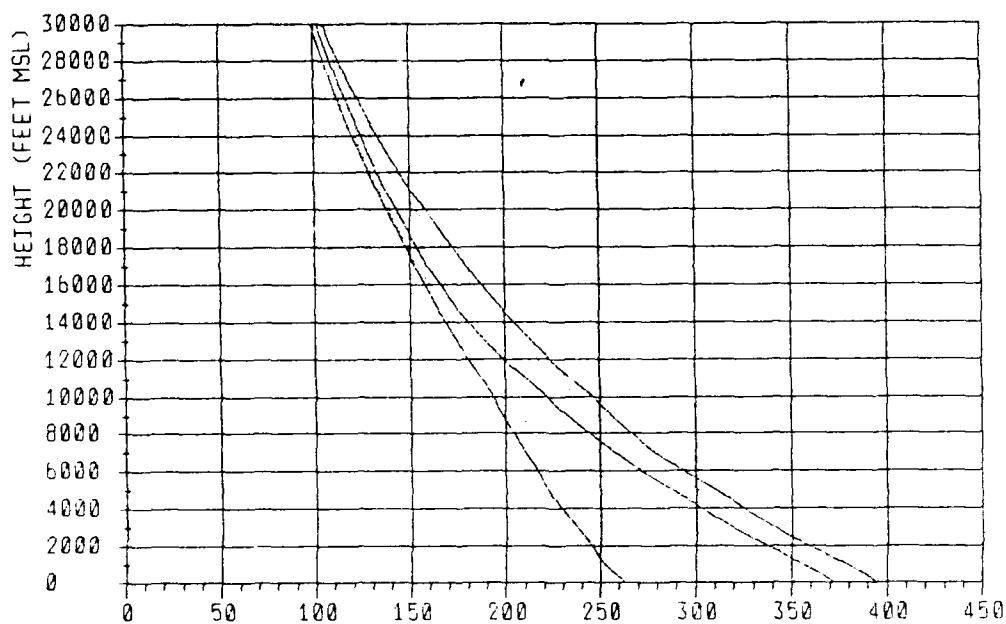
BELIZE

WET-DRY TRANSITION

N PERCENTILES



N (N-Units) 0000Z

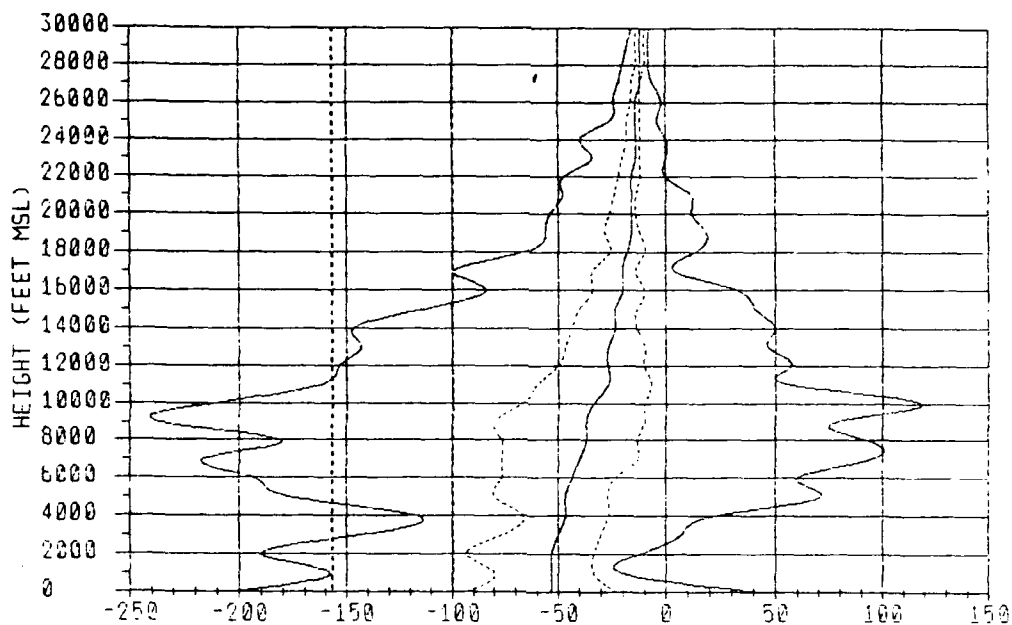


N (N-Units) 1200Z

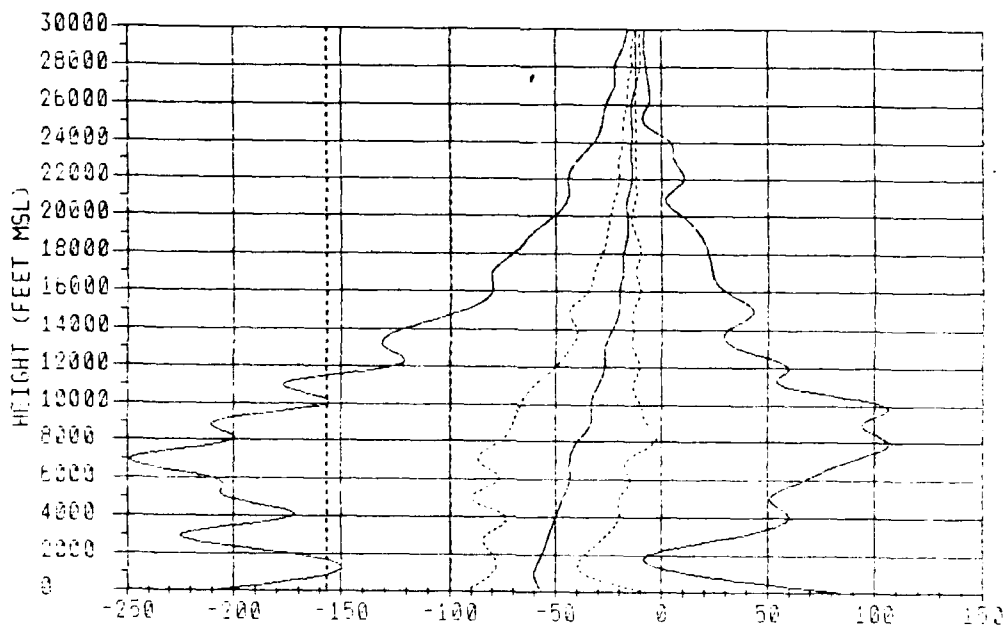
FIGURE B-7-2-A

B-109

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-7-2-B

BELIZE

WET-DRY TRANSITION

EQT FT MSL	N PERCENTILES				DNDH PERCENTILES				PERCENT OCCURRENCE				
	1%	10%	50%	90%	1%	10%	50%	90%	DUCT	SRLR	SUB		
500-1000	260.88	358.08	379.38	390.08	397.00	-243.18	-127.08	-58.25	-4.17	91.88	13.1	23.1	18.8
1000-1500	258.88	344.72	369.80	381.38	389.88	-113.80	-77.08	-54.18	-33.33	-20.83	1.0	2.8	0.0
1500-2000	253.80	337.00	361.28	372.75	380.22	-144.39	-77.08	-58.25	-35.41	-20.01	1.0	4.8	1.0
2000-2500	280.37	328.41	351.88	363.69	371.10	-185.88	-93.33	-58.25	-35.41	-20.08	3.2	7.3	1.0
2500-3000	247.80	320.21	342.19	354.25	361.41	-181.88	-93.33	-58.25	-33.33	8.33	4.4	9.8	1.8
3000-3500	288.45	311.71	331.69	344.27	351.09	-180.84	-93.75	-54.18	-33.33	10.42	3.8	8.9	2.8
3500-4000	280.27	303.37	322.25	334.00	341.37	-145.83	-77.08	-50.00	-31.25	4.87	1.3	6.3	2.2
4000-4500	272.00	297.21	314.08	325.75	333.59	-131.79	-72.91	-50.00	-29.18	8.25	1.3	4.1	2.2
4500-5000	248.38	289.22	306.56	317.60	325.88	-113.80	-68.66	-47.91	-27.09	18.08	1.3	2.9	4.1
5000-5500	281.50	282.52	299.38	310.75	319.02	-137.83	-68.66	-48.83	-28.00	33.33	2.8	3.2	7.0
5500-6000	240.83	270.19	287.69	300.80	308.88	-177.47	-77.08	-48.83	-28.00	73.87	7.3	8.9	9.8
6000-6500	225.10	291.80	273.88	288.19	293.81	-180.51	-75.00	-43.78	-22.91	73.78	8.0	11.7	8.2
6500-7000	213.80	233.71	261.28	273.75	280.38	-219.97	-75.98	-38.97	-13.28	93.28	7.8	11.7	18.2
7000-7500	208.77	220.20	248.08	261.41	268.08	-208.84	-78.00	-37.80	-13.28	90.82	9.2	13.8	18.2
7500-8000	188.88	207.80	234.80	248.80	255.40	-209.88	-73.30	-38.88	-10.03	81.38	8.8	12.7	18.8
8000-8500	180.35	198.00	222.50	238.00	244.88	-202.05	-83.41	-30.07	-10.03	122.10	8.9	11.4	18.7
8500-9000	183.95	198.88	211.55	228.88	233.34	-171.52	-83.28	-29.88	-9.88	80.02	8.1	10.8	18.3
9000-9500	177.88	183.10	198.45	215.80	222.70	-181.92	-50.00	-28.88	-10.03	73.30	5.4	9.8	14.8
9500-10000	171.80	175.70	189.70	208.48	212.44	-148.87	-48.74	-28.88	-13.28	80.00	4.8	7.8	18.3
10000-10500	168.04	169.40	180.00	187.30	202.80	-143.30	-48.81	-23.30	-13.41	38.71	8.1	8.4	11.8
10500-11000	161.10	183.80	172.10	188.30	193.88	-103.33	-38.97	-20.08	-13.28	43.23	1.3	5.1	10.2
11000-11500	154.00	158.20	185.40	180.70	186.40	-98.08	-38.01	-20.00	-13.41	38.82	0.8	5.1	8.8
11500-12000	150.70	152.70	188.40	172.78	177.80	-73.88	-30.00	-18.04	-12.03	18.01	0.0	1.8	8.7
12000-12500	147.00	147.10	152.80	165.20	170.21	-70.00	-28.01	-17.88	-10.00	17.88	1.0	1.8	8.8
12500-13000	142.20	142.20	148.80	157.80	162.84	-58.01	-27.88	-18.01	-13.88	12.78	0.0	1.0	8.1
13000-13500	135.70	137.50	141.40	151.10	155.84	-85.88	-24.08	-18.01	-13.88	14.77	0.0	0.0	8.8
13500-14000	131.40	133.00	138.80	144.80	149.42	-48.78	-23.88	-18.01	-12.03	11.88	0.0	0.0	8.1
14000-14500	127.15	128.70	131.80	138.80	143.30	-48.07	-21.88	-14.08	-11.88	0.00	0.0	0.3	3.8
14500-15000	122.34	124.00	127.20	132.80	137.32	-32.03	-9.04	-13.88	-11.88	2.03	0.0	0.0	3.9
15000-15500	118.00	119.80	122.80	127.30	131.10	-39.47	-8.04	-13.88	-11.88	-1.97	0.0	0.0	2.3
15500-16000	113.78	118.00	118.40	122.21	125.70	-28.01	-17.88	-13.88	-11.88	-2.40	0.0	0.0	1.7
16000-16500	108.68	112.20	114.80	117.70	120.88	-24.08	-18.01	-12.03	-11.88	-3.88	0.0	0.0	1.3
16500-17000	105.52	108.10	110.40	113.10	115.88	-23.01	-14.08	-12.03	-10.00	-7.87	0.0	0.7	0.3
17000-17500	101.10	104.50	108.40	108.80	110.40	-18.83	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.0
17500-18000	97.42	101.10	102.80	104.80	106.40	-18.07	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.3
18000-18500	93.92	97.80	98.80	101.20	102.80	-18.04	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.7
18500-19000	90.20	94.70	98.20	97.78	98.80	-18.04	-12.03	-10.00	-10.00	-6.02	0.0	0.0	0.3
19000-19500	88.88	91.10	92.70	94.30	95.40	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
19500-20000	83.37	87.80	88.30	90.70	91.80	-28.83	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
20000-20500	80.38	85.70	88.80	87.80	88.20	-23.88	-10.00	-10.00	-10.00	-7.87	0.0	0.0	0.0

0000Z

EQT FT MSL	N PERCENTILES				DNDH PERCENTILES				PERCENT OCCURRENCE				
	1%	10%	50%	90%	1%	10%	50%	90%	DUCT	SRLR	SUB		
500-1000	288.40	382.48	378.00	388.37	398.50	-285.28	-114.58	-54.18	14.58	122.91	9.4	18.8	23.8
1000-1500	288.44	348.04	368.00	381.18	390.24	-188.78	-87.80	-60.41	-22.91	22.48	3.7	8.2	5.7
1500-2000	284.40	337.25	360.80	371.81	380.80	-188.73	-83.33	-60.41	-33.33	12.80	2.0	6.4	2.8
2000-2500	280.20	328.11	351.88	362.38	370.28	-180.00	-79.18	-60.41	-37.50	28.00	1.7	5.4	2.8
2500-3000	241.20	318.00	342.38	352.87	360.19	-188.37	-81.28	-58.33	-38.88	-8.33	2.8	8.4	1.8
3000-3500	232.10	310.50	332.00	343.08	350.48	-188.84	-79.18	-58.25	-33.33	-0.85	3.0	7.7	2.8
3500-4000	237.81	300.82	322.00	333.08	340.77	-285.72	-87.80	-54.18	-30.07	18.88	4.8	7.7	2.0
4000-4500	233.88	290.04	312.38	324.75	332.23	-181.88	-77.08	-52.08	-28.00	99.33	3.2	4.8	4.4
4500-5000	230.15	283.84	305.80	317.19	328.82	-180.41	-72.91	-50.00	-23.30	38.88	1.7	8.2	5.7
5000-5500	228.80	278.28	298.08	310.19	319.19	-207.80	-83.33	-47.91	-20.83	68.28	8.4	10.8	8.4
5500-6000	220.38	261.33	275.08	289.19	308.02	-202.54	-87.80	-47.91	-18.28	84.18	8.4	14.3	11.8
6000-6500	214.88	244.80	270.08	284.08	291.38	-208.28	-75.00	-43.78	-14.58	77.88	7.8	11.3	12.8
6500-7000	209.28	228.50	258.80	271.00	277.80	-245.88	-88.88	-41.88	-13.83	72.91	8.8	17.8	18.8
7000-7500	203.28	215.70	242.30	258.00	268.38	-211.18	-78.88	-38.71	-3.28	118.88	8.8	13.1	20.4
7500-8000	198.88	204.80	228.70	245.80	253.88	-179.88	-68.82	-33.33	-8.77	88.71	8.7	13.3	18.8
8000-8500	181.80	198.30	218.80	235.80	243.84	-178.88	-68.88	-30.07	-10.03	101.40	8	9.1	18.7
8500-9000	183.13	188.80	207.80	224.33	231.40	-180.00	-88.83	-28.88	-13.28	88.88	7.3	10.1	13.8
9000-9500	177.70	181.81	188.80	211.10	220.70	-143.38	-50.00	-28.88	-9.90	84.85	7.2	7.1	18.3
9500-10000	172.40	175.00	188.70	204.53	211.20	-121.12	-45.38	-28.88	-13.41	38.71	2.2	5.9	10.8
10000-10500	168.88	188.80	178.00	195.88	201.74	-128.88	-38.97	-23.30	-13.28	38.71	3.4	8.9	11.1
10500-11000	181.30	183.40	170.10	187.00	193.44	-88.88	-38.97	-20.08	-13.28	41.24	1.7	2.7	8.8
11000-11500	158.10	187.90	183.80	179.80	188.28	-84.83	-33.88	-19.82	-11.88	30.04	0.7	3.2	8.8
11500-12000	151.10	182.50	187.20	171.70	177.20	-89.27	-30.00	-17.88	-11.88	28.28	0.0	1.8	7.1
12000-12500	148.30	148.80	181.50	164.10	139.80	-75.88	-27.88	-18.01	-11.88	22.00	1.0	2.0	8.4
12500-13000	140.80	142.00	148.80	158.80	162.07	-50.00	-28.01	-18.01	-13.88	11.88	0.2	0.8	8.2
13000-13500	138.00	137.30	140.70	150.30	155.27	-48.02	-23.88	-18.01	-13.88	10.00	0.2	0.2	4.7
13500-14000	131.80	132.80	135.80	144.15	148.70	-43.88	-22.03	-18.94	-12.03	0.00	0.0	1.0	3.2
14000-14500	127.22	128.80	131.50	138.30	142.77	-43.88	-22.03	-13.88	-11.88	12.01	0.2	0.0	8.2
14500-15000	122.30	123.80	127.00	132.80	138.80	-33.88	-18.04	-13.88	-11.88	6.02	0.0	0.0	8.2
15000-15500	117.48	119.80	122.40	127.20	130.48	-30.00	-18.04	-13.88	-11.88	-1.88	0.0	0.8	3.2
15500-16000	113.43	118.80	118.30	122.10	124.80	-25.83	-17.88	-13.88	-11.88	-7.87	0.0	0.0	0.8
16000-16500	109.81	112.10	114.30	117.40	120.08	-23.88	-18.01	-12.03	-11.88	-5.84	0.0	0.0	0.8
16500-17000	105.80	107.80	110.20	112.80	115.20	-21.88	-14.08	-12.03	-10.00	-8.02	0.0	0.0	1.2
17000-17500	101.81	104.40	108.20	108.40	110.30	-18.04	-13.88	-12.03	-10.00	-7.87	0.0	0.0	0.8
17500-18000	97.81	101.00	102.70	104.88	108.20	-18.01	-13.88	-11.88	-10.00	-7.87	0.0	0.0	0.0
18000-18500	94.42	97.80	98.40	101.00	102.40	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
18500-19000	91.12	94.80	98.10	97.70	98.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
19000-19500	87.84	91.00	92.80	94.20	95.40	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
19500-20000	84.31	87.80	88.20	90.80	91.40	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
20000-20500	81.42	85.70	88.60	87.80	88.20	-20.00	-10.00	-10.00	-10.00	-7.87	0.0	0.0	0.0
20500-21000	94.42	97.80	98.40	101.00	102.40	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
21000-21500	91.12	94.80	98.10	97.70	98.80	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.8
21500-22000	87.84	91.00	92.80	94.20	95.40	-17.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
22000-22500	84.31	87.80	88.20	90.80	91.40	-23.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
22500-23000	81.42	85.70	88.60	87.80	88.20	-20.00	-10.00	-10.00	-10.00	-7.87	0.0	0.0	0.0

THICKNESS STATISTICS

BASE FT MBL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	13.3	82	279	377	23.1	98	279	377	99.4	1457	7316	34975	15.5	115	279	377
500-1000	0.6	98	246	394	0.6	591	738	886	1.0	2461	4527	15650	0.0			
1000-1500	1.0	98	394	591	3.8	98	787	1299	1.9	98	2165	8366	1.0	394	394	492
1500-2000	2.9	98	394	591	3.5	98	394	1083	4.4	98	5807	16719	1.0	197	787	984
2000-2500	2.5	197	394	591	6.3	98	591	1339	4.8	1969	5708	19954	1.0	295	394	1181
2500-3000	2.2	98	394	787	3.8	98	394	1083	7.6	689	3937	32465	1.6	295	492	591
3000-3500	0.3	295	295	295	1.9	98	295	984	5.7	965	3051	15082	1.0	98	394	1083
3500-4000	1.3	98	295	295	1.9	197	344	886	3.2	384	2510	28947	1.6	295	1083	1378
4000-4500	0.6	197	246	295	1.6	98	295	591	3.2	157	1969	7283	2.5	98	541	1280
4500-5000	2.5	197	344	984	2.2	98	295	886	6.0	138	2904	30250	3.5	197	295	1024
5000-6000	6.0	98	197	394	7.9	98	197	689	13.0	98	1870	13426	7.3	138	394	1494
6000-7000	5.4	98	197	512	9.8	98	295	640	14.6	98	2165	28380	7.0	98	492	1309
7000-8000	7.0	98	295	551	9.5	98	295	689	15.2	98	2067	27514	12.3	197	591	1083
8000-9000	8.5	177	295	394	11.1	98	295	719	18.7	98	1870	26490	9.2	197	492	1063
9000-10000	6.3	108	295	394	10.8	98	197	689	18.7	98	1476	25782	11.4	98	492	984
10000-11000	8.3	98	97	394	9.2	98	197	394	23.5	98	2165	24797	12.4	197	492	1024
11000-12000	5.7	98	197	295	10.2	98	295	452	17.2	98	1821	23459	10.5	98	492	738
12000-13000	4.5	98	98	295	7.0	98	197	394	17.5	98	1575	22770	11.8	98	394	1083
13000-14000	4.5	98	246	295	6.1	98	197	295	15.9	98	5413	21825	10.5	98	492	864
14000-15000	4.1	98	197	295	5.1	98	197	394	13.7	364	1985	20604	6.7	98	443	787
15000-16000	1.0	98	197	295	5.1	98	98	226	10.8	98	4183	19640	8.6	98	328	1017
16000-17000	0.6	164	164	164	4.8	118	164	230	10.8	98	2789	18570	7.0	164	328	692
17000-18000	0.0				1.6	164	164	328	6.1	164	17225	17881	5.4	164	492	984
18000-19000	1.0	164	164	164	1.6	164	164	328	9.9	213	15912	16733	7.3	164	656	820
19000-20000	0.0				1.0	164	164	164	5.2	427	15092	15584	4.5	164	328	656

0000Z

BASE FT MBL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	9.4	82	295	476	19.6	98	295	669	96.0	476	6086	35073	23.6	197	377	476
500-1000	1.2	98	394	591	2.2	98	98	984	9.6	571	6102	33347	1.0	98	492	984
1000-1500	1.2	98	295	591	2.7	98	591	1555	4.0	98	3051	17573	1.7	197	492	1280
1500-2000	1.5	98	295	689	3.0	98	591	1280	3.2	1299	3740	24863	0.5	492	541	591
2000-2500	2.0	197	295	591	2.7	98	394	1240	3.7	630	2953	19738	1.0	295	344	492
2500-3000	2.0	98	443	787	4.7	98	492	886	6.4	98	1969	8084	1.5	98	541	1181
3000-3500	3.7	197	394	827	4.2	98	197	925	4.9	226	3494	15719	1.0	689	1476	1673
3500-4000	1.2	197	394	492	2.5	207	443	866	4.0	98	1378	17451	3.2	295	689	1201
4000-4500	1.0	197	394	492	4.0	98	492	906	4.2	98	1870	13629	2.5	138	541	1778
4500-5000	5.4	197	394	492	7.9	98	295	758	10.3	98	2707	13773	3.9	197	394	1220
5000-6000	5.2	98	295	571	9.6	98	295	571	19.2	98	1772	18672	9.1	98	492	1083
6000-7000	6.9	98	295	394	10.1	98	197	610	15.0	98	1280	28281	8.6	177	492	886
7000-8000	8.4	98	295	394	14.8	98	295	591	21.9	98	1280	27691	11.1	98	492	1339
8000-9000	8.1	98	197	492	9.4	98	295	492	20.2	98	1673	26589	15.0	157	394	1319
9000-10000	5.4	98	197	394	11.3	98	197	482	19.9	98	1821	25821	8.9	98	640	1368
10000-11000	6.4	98	197	315	8.4	98	197	492	22.9	98	2707	24837	13.1	98	344	1083
11000-12000	4.4	98	197	394	9.4	98	295	394	17.0	98	2264	23656	9.9	98	591	1122
12000-13000	3.9	98	197	325	6.7	98	197	305	16.0	98	2658	22573	10.3	98	394	689
13000-14000	2.2	98	197	295	5.4	98	197	394	13.5	98	3051	21805	7.9	98	492	1093
14000-15000	3.4	98	98	246	5.7	98	148	325	11.6	98	2969	20575	6.9	98	394	1083
15000-16000	1.7	98	197	295	2.0	98	98	197	8.1	525	4905	19866	6.2	157	525	1070
16000-17000	0.7	98	164	164	3.2	98	164	203	9.1	164	4249	18685	6.9	164	492	820
17000-18000	0.0				1.5	164	164	164	6.4	164	5249	17881	4.9	164	492	1115
18000-19000	1.0	164	164	164	2.0	164	164	328	9.4	492	8694	16733	7.1	164	328	820
19000-20000	0.2	164	164	164	0.5	164	164	164	5.9	1558	15174	15584	4.2	164	328	755

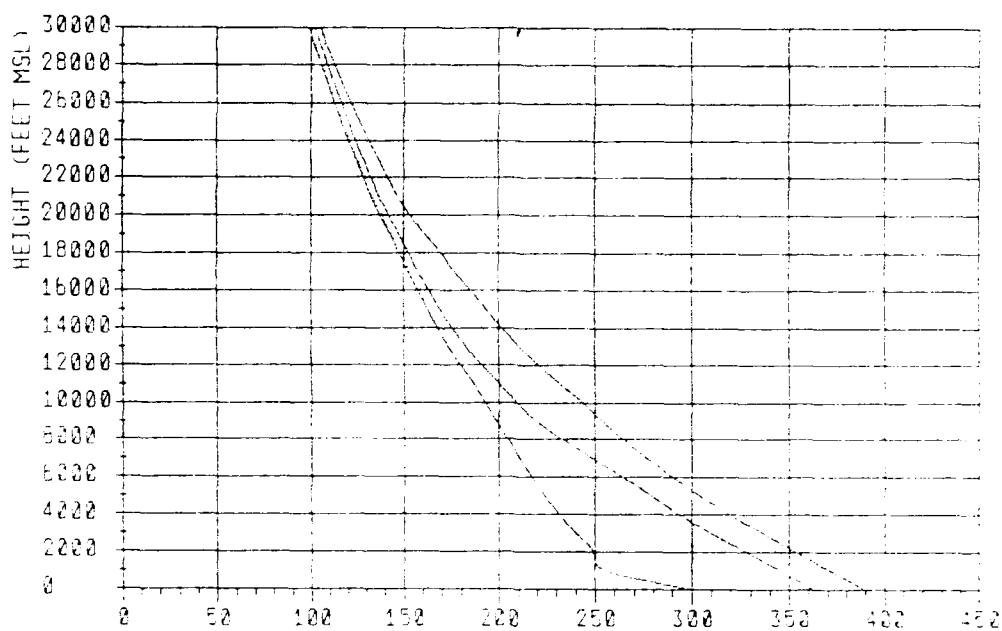
1200Z

FIGURE B-7-2-D

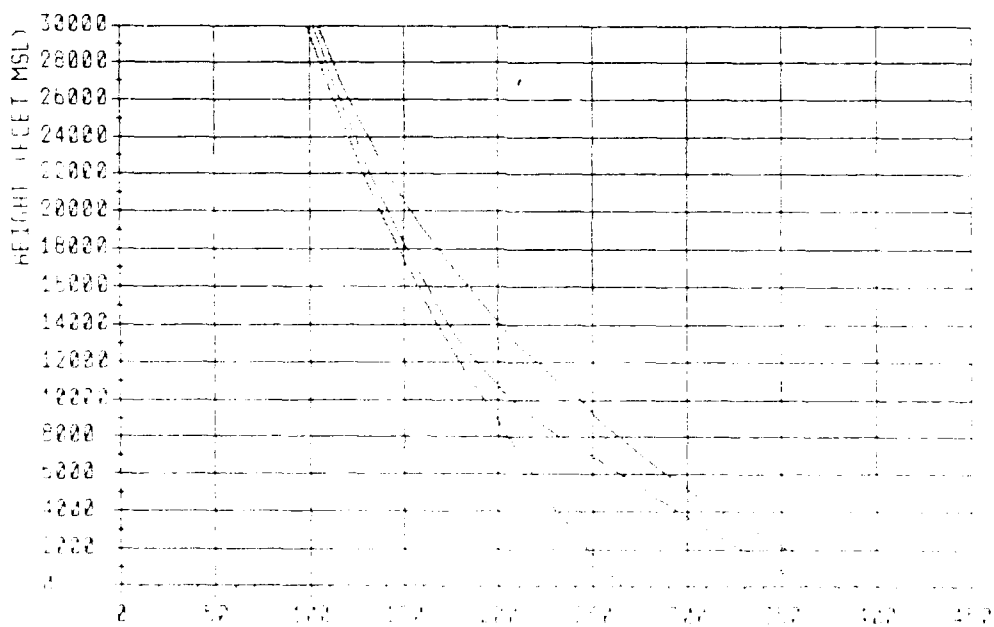
BELIZE

DRY SEASON

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

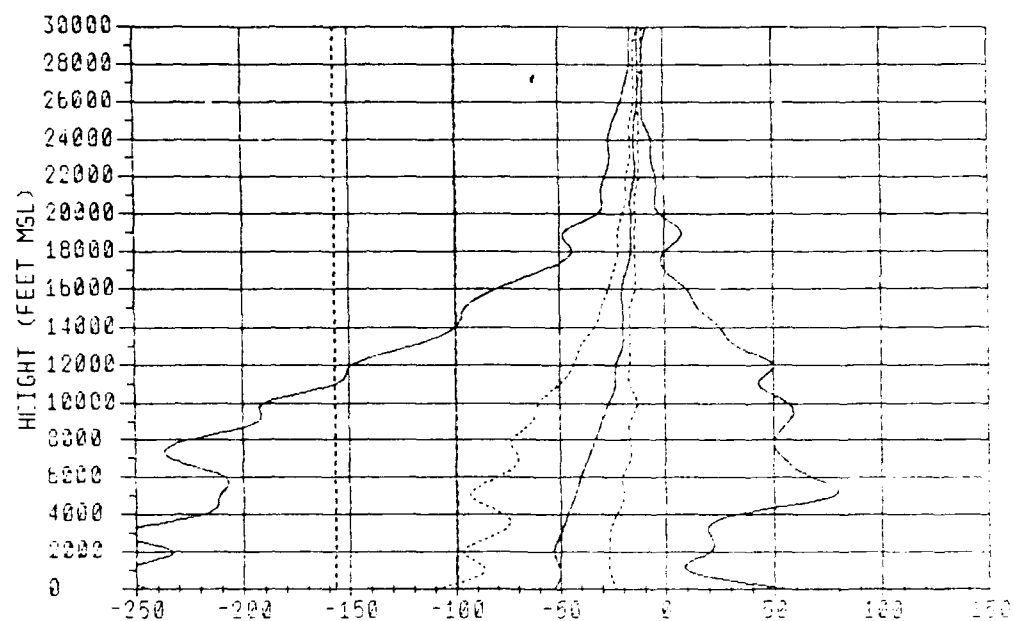
FIGURE B-7-3-A

B-113

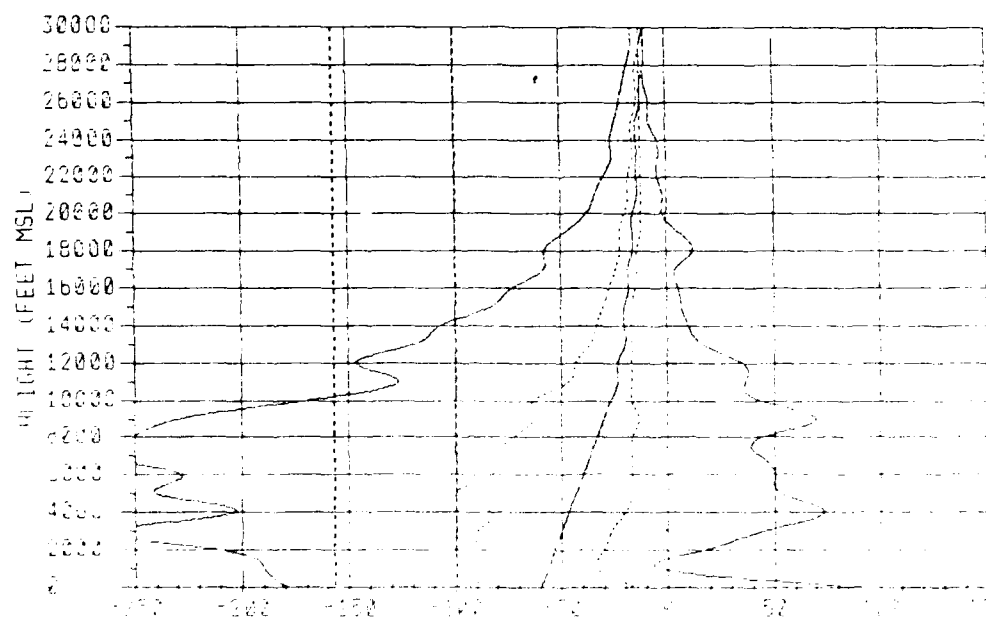
BELIZE

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-7-3-B

B-114

THICKNESS STATISTICS

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRB THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	14.9	82	279	476	28.4	98	377	574	96.3	1083	3512	34877	14.0	180	279	476
500-1000	1.1	492	787	1181	0.5	98	1083	1280	5.5	315	7382	34522	0.9	98	98	489
1000-1500	2.7	197	394	807	4.3	98	492	1102	1.8	1014	2756	31594	0.7	295	344	787
1500-2000	3.7	197	394	591	6.9	98	394	1083	7.3	98	2658	9744	2.0	138	689	1437
2000-2500	3.2	187	295	600	5.3	98	295	1083	6.4	856	3937	15679	1.4	394	787	2756
2500-3000	4.4	98	394	591	6.2	98	394	925	8.9	512	3051	10059	0.9	295	492	1476
3000-3500	2.8	266	443	817	3.6	98	197	689	7.3	709	2658	6988	1.1	98	443	984
3500-4000	1.8	197	394	758	3.0	98	492	905	5.3	295	3150	31392	1.8	118	440	1181
4000-4500	2.8	98	394	591	3.7	98	295	768	5.5	98	3512	30939	2.1	98	492	1083
4500-5000	3.5	98	295	482	8.0	98	295	728	8.3	98	2854	30349	4.1	295	591	1476
5000-6000	5.9	98	295	492	11.5	98	295	689	17.7	98	2412	29857	5.9	98	394	1201
6000-7000	8.0	98	295	492	11.2	98	295	591	14.7	98	3051	28774	6.9	98	492	984
7000-8000	9.4	98	295	453	11.2	98	197	591	17.9	98	3248	27800	6.4	98	492	1181
8000-9000	10.1	98	295	492	12.2	98	197	591	18.1	98	3248	26707	9.0	98	394	1280
9000-10000	5.0	98	295	394	7.6	98	197	413	13.8	98	2215	25919	8.5	98	541	984
10000-11000	7.8	98	197	344	9.4	98	148	394	21.1	197	2953	24935	8.5	98	394	1083
11000-12000	4.8	98	197	394	7.3	98	197	394	14.4	98	2854	23951	8.2	98	492	1181
12000-13000	4.6	98	197	295	7.3	98	197	394	13.5	98	3051	22770	6.6	98	492	1073
13000-14000	2.5	98	197	295	5.7	98	197	295	11.0	98	2789	21805	5.2	197	492	1063
14000-15000	3.0	98	98	295	3.4	98	98	246	8.4	98	4166	20644	3.2	98	394	1063
15000-16000	1.8	98	148	197	3.7	98	98	266	6.9	98	19029	19817	3.2	98	361	1089
16000-17000	0.2	164	164	164	2.7	118	164	328	4.1	144	18209	18727	2.3	164	454	1083
17000-18000	0.5	164	164	164	0.7	164	164	164	3.7	262	17471	17717	1.1	164	328	984
18000-19000	0.0				0.7	164	164	164	4.3	984	15912	16486	3.9	164	492	820
19000-20000	0.2	164	164	164	0.2	164	164	164	1.6	295	15256	15420	1.3	164	328	492

0000Z

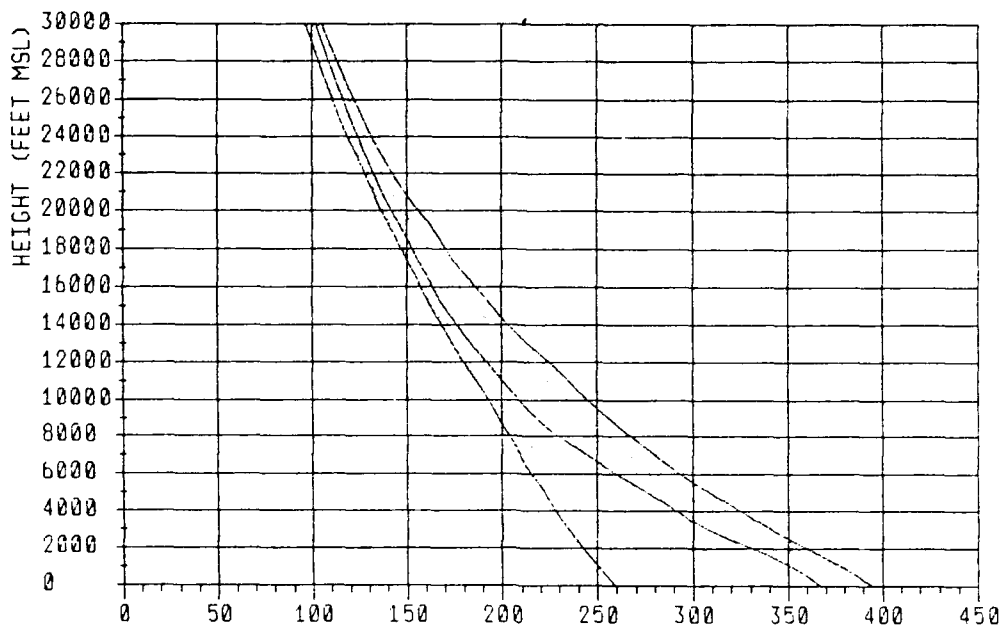
BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRB THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	6.4	92	279	426	20.4	98	377	610	96.6	574	5003	34877	25.4	180	377	476
500-1000	1.3	197	394	591	3.4	98	197	1230	7.1	1486	4085	9488	0.3	98	98	394
1000-1500	1.6	138	591	1043	2.9	98	492	1368	2.7	591	3130	33892	1.1	98	394	3347
1500-2000	2.3	167	344	620	3.4	98	541	1181	3.9	98	2953	33420	1.0	295	787	1083
2000-2500	3.0	98	295	571	3.9	98	394	1181	4.9	148	3740	32907	0.9	98	984	1378
2500-3000	4.4	197	295	689	7.0	98	492	984	7.0	98	2362	8671	2.3	177	492	1201
3000-3500	3.9	276	295	689	4.9	98	197	1063	6.9	98	2165	6851	1.9	98	837	1575
3500-4000	3.6	98	295	630	4.3	98	295	768	7.4	98	1673	19637	2.7	98	492	1280
4000-4500	2.7	98	295	591	5.1	98	295	689	7.7	98	1083	4872	4.4	138	492	846
4500-5000	6.4	98	295	531	10.1	98	295	787	10.1	197	2510	30319	4.9	148	394	984
5000-6000	7.8	98	295	492	13.6	98	295	787	22.4	98	3199	29827	7.4	98	394	1378
6000-7000	7.3	98	295	492	11.4	98	197	689	17.5	98	3543	28577	7.3	98	492	1457
7000-8000	10.8	98	295	492	11.0	98	197	492	18.3	197	3051	27691	5.7	98	541	1484
8000-9000	9.7	98	246	394	13.4	98	197	492	18.7	98	3347	26805	7.1	98	541	1575
9000-10000	7.3	98	295	394	9.0	98	197	394	15.0	98	3445	25821	6.1	157	394	925
10000-11000	5.4	98	197	394	7.0	98	197	492	17.5	98	2953	24876	6.8	98	394	1142
11000-12000	4.0	98	148	305	6.4	98	197	295	11.6	98	3051	23852	5.9	98	492	1083
12000-13000	4.9	98	197	246	7.1	98	197	394	12.3	98	9908	22770	4.9	98	295	1181
13000-14000	2.0	98	148	295	4.7	98	197	295	7.9	482	9088	21884	3.7	98	394	1181
14000-15000	2.1	98	98	335	3.4	98	197	325	6.7	98	20014	20703	3.1	98	394	1201
15000-16000	1.4	98	98	295	3.0	98	197	295	5.3	98	19128	19817	2.6	98	394	787
16000-17000	0.6	164	164	164	1.0	131	164	328	3.7	105	4101	18832	1.6	141	525	1099
17000-18000	0.1	164	164	164	0.7	164	164	328	2.1	279	4921	17717	3.0	164	492	1050
18000-19000	0.3	164	164	164	1.3	164	164	328	5.6	164	15912	16733	4.0	164	328	820
19000-20000	0.0				0.1	164	164	164	2.2	2658	15256	15748	1.2	164	328	656

1200Z

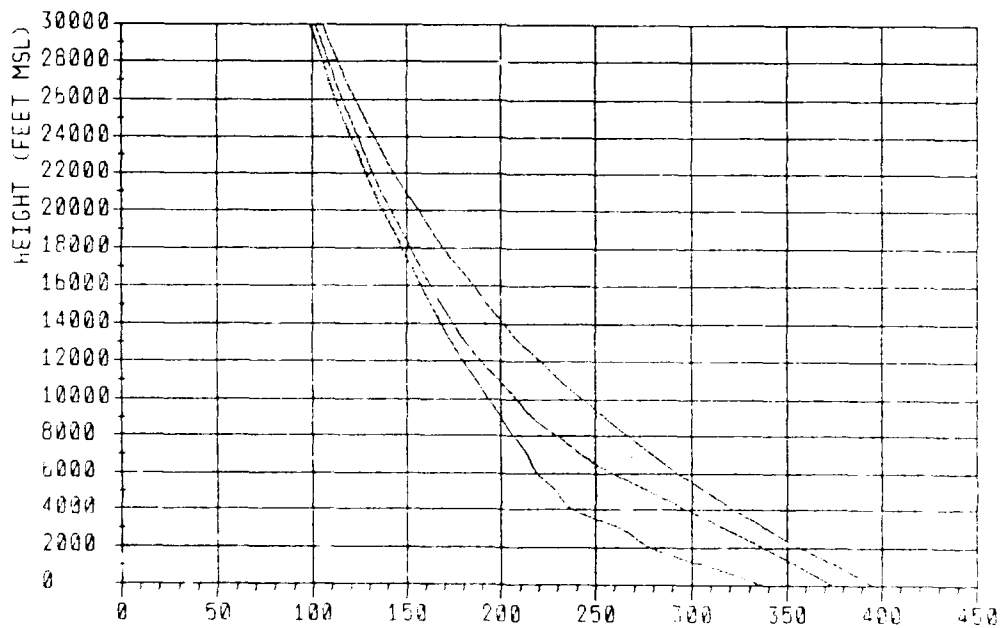
FIGURE B-7-3-D

B-116

N PERCENTILES



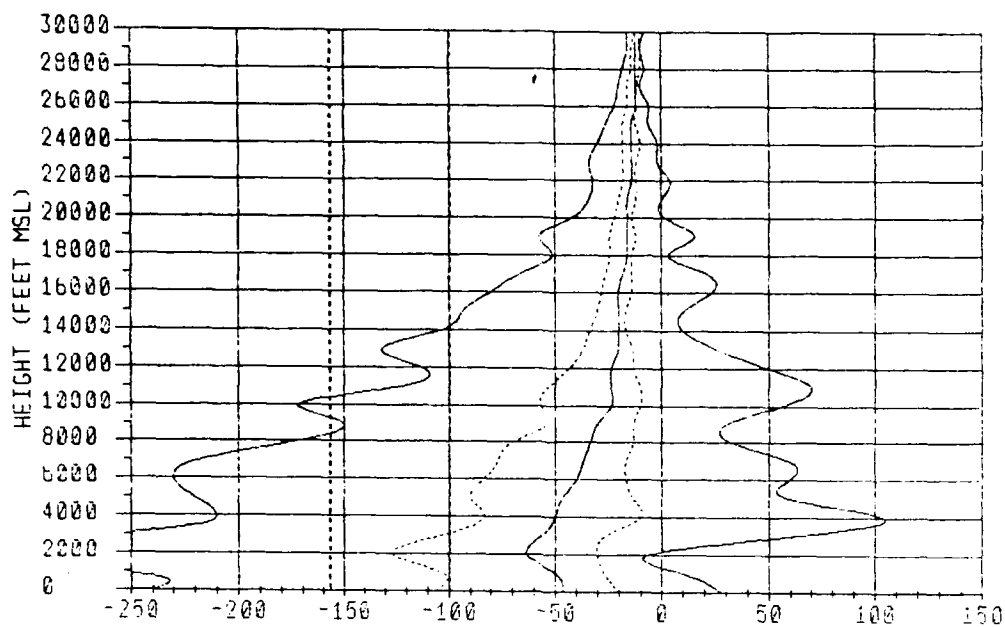
N (N-Units) 0000Z



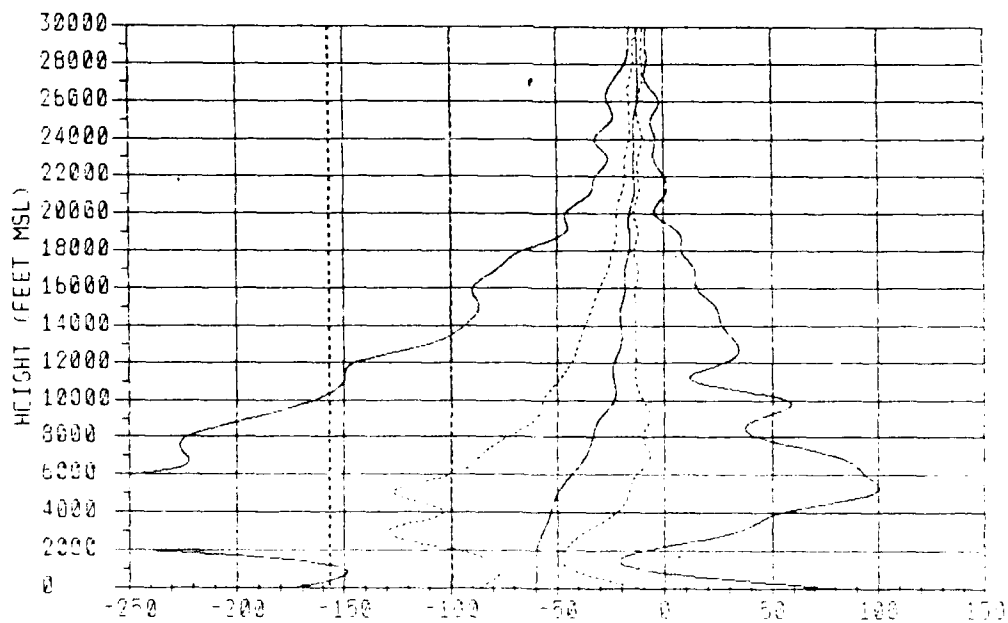
N (N-Units) 1200Z

FIGURE B-7-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-7-4-B

THICKNESS STATISTICS

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	21.7	82	238	377	35.4	98	279	377	97.5	984	2641	28666	12.6	148	279	787
500-1000	1.1	98	197	295	1.4	98	837	1280	2.5	98	3986	34483	0.7	98	443	787
1000-1500	3.6	197	492	1043	7.2	118	689	1171	3.6	98	2805	27386	2.2	98	98	492
1500-2000	7.9	157	394	689	11.2	98	492	866	9.0	157	4232	19285	1.4	98	98	984
2000-2500	8.7	148	295	689	10.5	98	492	1181	16.6	197	4330	8366	1.4	98	246	1280
2500-3000	7.6	197	492	886	11.6	98	295	1142	13.7	98	2362	32574	2.2	394	1476	4823
3000-3500	4.0	217	295	689	4.0	98	98	925	9.0	394	3442	31963	2.9	98	738	1476
3500-4000	2.2	197	394	689	5.4	98	344	915	9.7	98	1280	8537	3.2	98	492	1280
4000-4500	2.5	98	394	787	4.3	98	492	1152	8.3	98	886	31057	6.1	108	492	1053
4500-5000	9.0	197	295	591	6.5	98	197	423	15.1	394	3002	30250	4.0	118	295	1634
5000-6000	7.9	98	246	591	11.2	98	295	817	16.2	98	2264	29719	7.9	98	492	1063
6000-7000	6.1	197	295	492	9.0	98	197	689	17.7	98	4970	28764	7.6	98	492	1555
7000-8000	7.9	197	295	591	11.6	98	197	492	17.7	98	4134	27888	6.9	98	541	1171
8000-9000	5.8	98	197	394	10.5	98	295	492	15.5	98	3543	26805	5.1	98	492	1181
9000-10000	2.5	98	197	492	6.1	98	197	394	11.6	98	5758	25821	9.7	98	295	807
10000-11000	5.1	98	295	394	7.9	98	98	443	18.0	98	3445	24935	8.3	98	492	1831
11000-12000	1.4	98	148	295	4.0	98	197	295	10.5	98	4380	23921	8.0	148	394	787
12000-13000	2.9	98	197	295	4.0	98	197	394	9.1	98	2953	22553	4.7	98	492	1329
13000-14000	2.9	98	197	394	6.5	98	197	305	9.8	98	5380	21687	3.3	98	591	1063
14000-15000	1.8	98	197	295	4.0	98	98	266	7.2	98	8465	20275	3.6	98	394	866
15000-16000	0.7	98	98	98	1.5	98	246	295	5.8	328	4281	19846	3.6	118	492	1352
16000-17000	0.4	131	131	131	2.2	98	164	164	5.8	551	3281	18406	2.9	295	492	1312
17000-18000	0.0				0.7	164	246	328	3.3	984	17061	17717	2.2	164	328	820
18000-19000	0.7	164	164	164	0.7	164	164	164	4.4	919	15912	16897	5.5	164	328	820
19000-20000	0.4	164	164	164	0.4	164	164	164	5.1	3527	15256	15666	2.9	164	492	820

0000Z

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRLRS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	8.9	97	180	605	21.3	98	279	476	98.0	1714	4183	11466	33.4	279	279	377
500-1000	0.3	787	787	787	0.7	98	344	591	3.0	98	1624	34670	0.3	197	197	197
1000-1500	0.0				2.3	98	591	886	2.0	394	3839	34089	1.0	492	591	591
1500-2000	3.3	98	492	768	3.0	98	492	1181	2.3	98	2608	33597	0.0			
2000-2500	3.0	98	394	689	5.2	98	541	1378	3.3	98	2854	12372	0.7	98	197	2165
2500-3000	7.2	128	344	689	9.2	98	443	1093	6.9	98	2165	28354	1.6	197	591	2165
3000-3500	8.2	197	394	787	7.2	98	295	1142	9.2	197	2116	16293	2.3	98	394	1476
3500-4000	5.9	197	443	689	8.5	98	246	915	10.2	138	2067	31294	3.6	138	886	1634
4000-4500	4.9	157	394	689	7.2	98	394	640	11.1	98	738	8159	4.6	98	591	2067
4500-5000	10.5	128	394	659	13.7	98	295	886	14.7	98	1181	22854	6.5	207	394	1083
5000-6000	13.4	197	394	591	19.3	98	197	689	31.7	98	4626	29738	8.2	256	591	1850
6000-7000	10.5	98	344	591	13.4	98	295	600	20.9	98	4724	28715	9.5	197	640	1673
7000-8000	9.2	98	295	404	12.4	98	295	591	21.6	197	3347	27976	7.5	98	394	1358
8000-9000	8.9	98	295	394	14.4	98	98	492	20.7	98	3642	26904	6.6	98	394	1358
9000-10000	4.3	98	197	354	6.2	98	197	295	12.5	98	7283	25890	7.2	98	492	1083
10000-11000	5.2	98	197	394	7.5	98	197	423	15.7	295	5561	24935	6.6	118	443	1083
11000-12000	4.3	98	197	295	5.6	98	246	404	11.1	98	4741	23852	5.2	98	394	1476
12000-13000	2.3	98	197	295	4.6	98	197	295	8.5	98	4462	22474	5.2	167	492	1309
13000-14000	2.3	98	197	295	4.3	98	98	453	9.8	98	3921	21795	5.2	98	591	1083
14000-15000	1.6	98	98	197	2.6	98	148	394	4.9	98	8694	20703	3.3	128	689	1437
15000-16000	1.6	98	148	197	3.6	98	98	266	7.5	98	8317	19669	4.6	98	394	958
16000-17000	0.2	164	164	164	1.5	98	164	328	5.9	820	9514	18832	5.9	164	492	837
17000-18000	0.3	164	164	164	1.3	164	164	164	5.2	889	17061	17881	2.6	164	492	1148
18000-19000	1.0	164	164	164	1.0	164	164	164	6.2	361	15912	16569	3.9	164	492	820
19000-20000	0.0				0.0				3.0	1640	15256	15748	3.0	164	328	492

1200Z

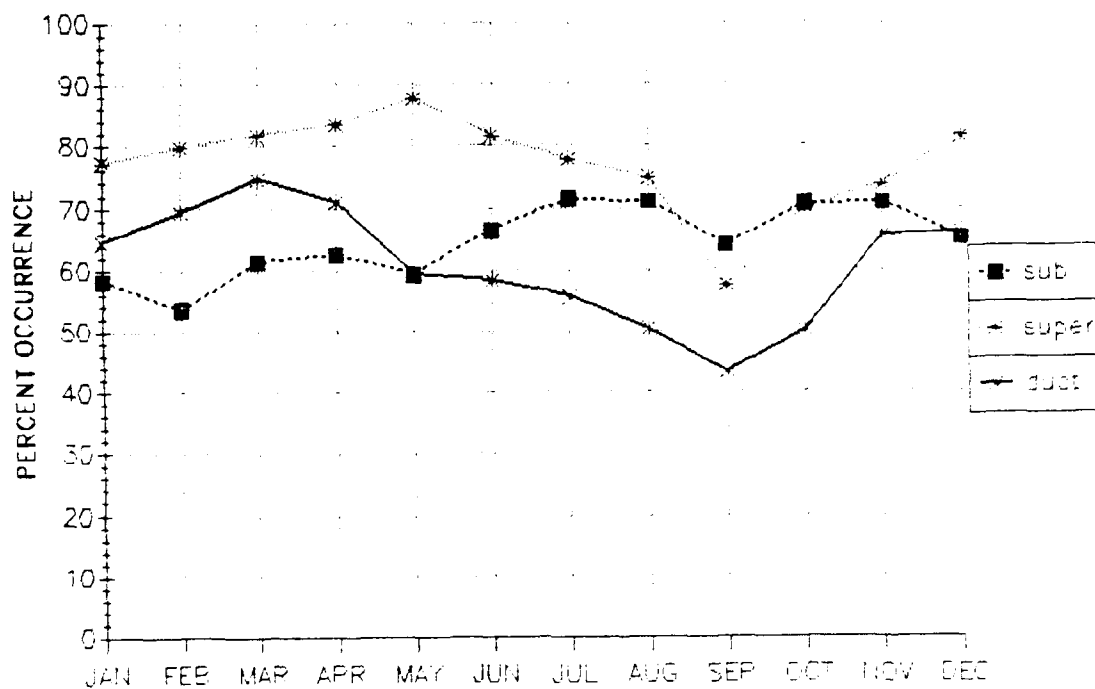
FIGURE B-7-4-D

B-120

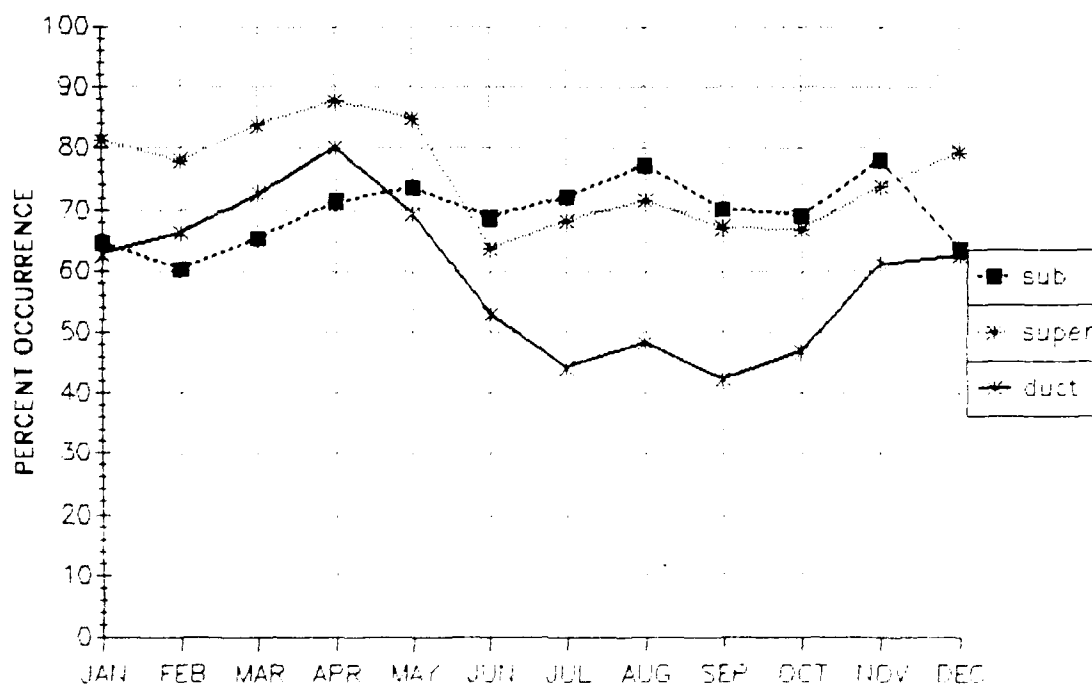
BELIZE

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY



0000Z

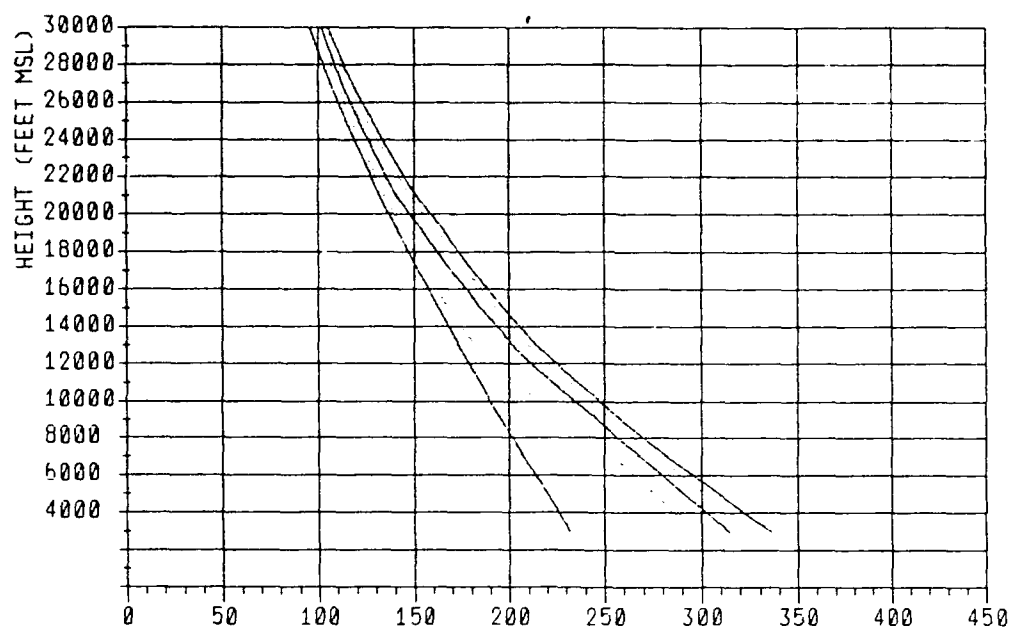


1200Z

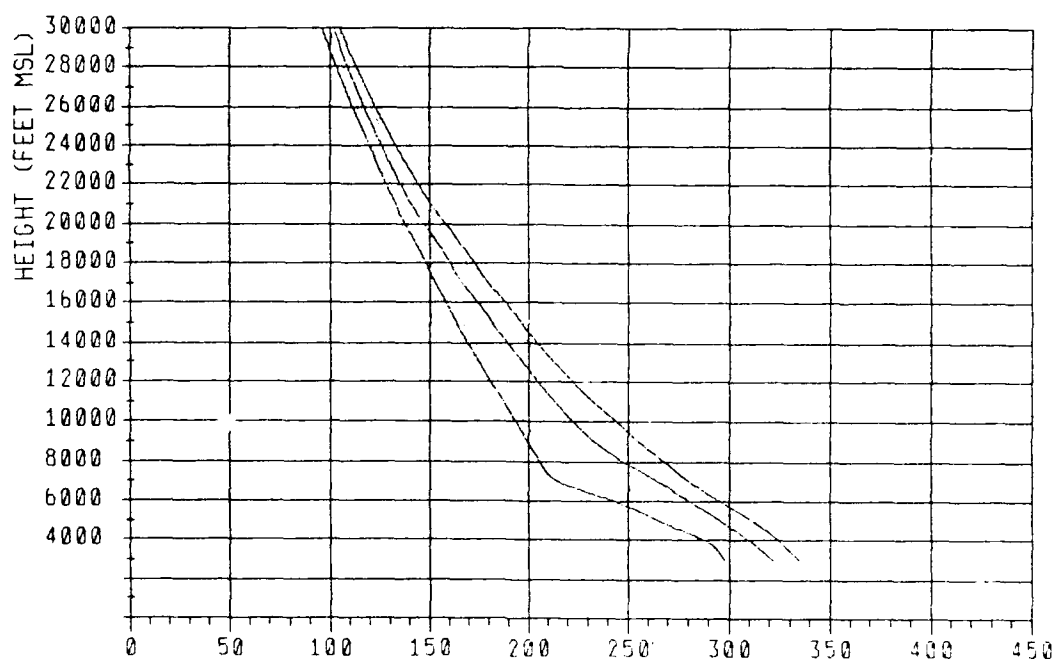
FIGURE B-7-5

B-121

N PERCENTILES



N (N-Units) 0000Z



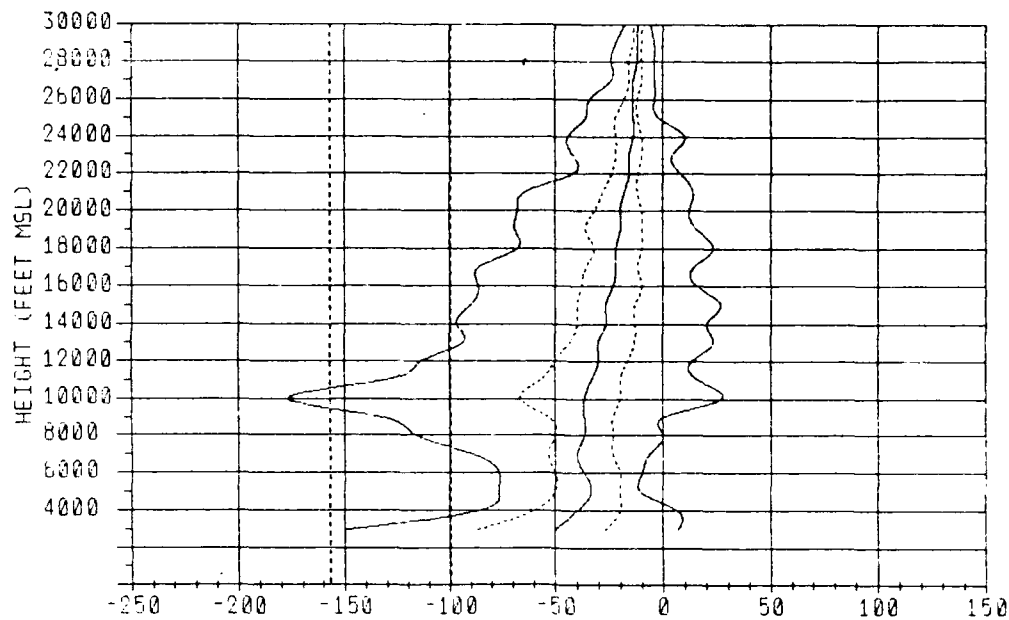
N (N-Units) 1200Z

FIGURE B-8-1-A

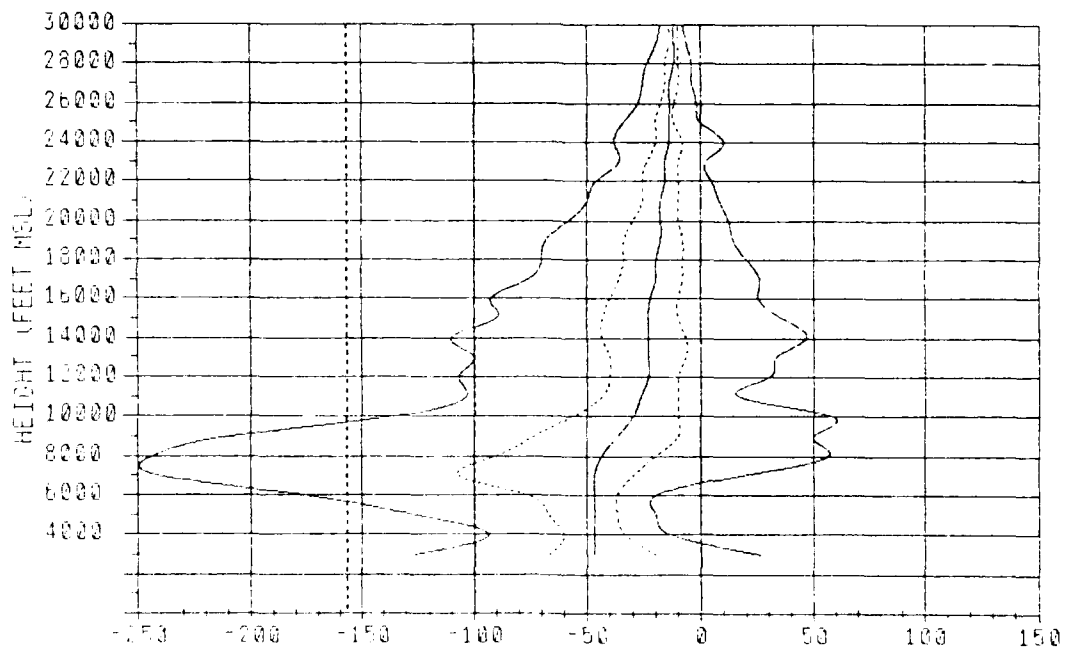
TEGUCIGALPA

WET SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-8-1-B

B-123

TEGUCIGALPA

WET SEASON

THICKNESS STATISTICS

BASE FT EQL	DUCTS THK PERCENTILES				SRLS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XPRG	10%	50%	90%	XPRG	10%	50%	90%	XPRG	10%	50%	90%	XPRG	10%	50%	90%
2000-3000	1.4	141	449	639	8.1	69	364	618	93.5	4827	12369	31993	1.4	266	1089	1742
3000-4000	0.3	98	197	295	0.7	98	98	787	5.5	3583	11316	31431	0.7	295	394	1083
4000-4500	0.2	295	295	295	0.2	591	591	591	1.8	98	7891	31126	0.2	591	591	591
4500-5000	0.7	197	295	295	0.5	787	1288	1772	9.0	3986	14889	38258	1.4	197	295	295
5000-6000	0.4	295	295	295	0.8				1.6	5887	14875	38132	0.9	98	541	689
6000-7000	0.7	295	295	295	0.7	98	295	787	1.8	1673	13468	28368	0.7	197	295	295
7000-8000	0.2	492	492	492	1.1	295	591	886	1.6	787	4628	27297	1.4	98	591	1883
8000-9000	1.6	98	394	492	3.2	148	344	648	3.2	157	5985	26746	1.8	197	591	1878
9000-10000	3.6	98	197	423	6.1	98	295	492	5.7	98	1526	25348	4.1	187	295	512
10000-11000	3.9	187	197	492	6.4	98	197	689	13.2	98	5922	24935	5.9	98	394	1884
11000-12000	2.8	98	197	394	4.4	98	295	472	9.5	98	4626	23715	4.6	98	394	1853
12000-13000	1.4	98	295	394	3.7	98	98	394	6.3	492	5216	22671	4.2	187	492	1593
13000-14000	2.1	98	197	384	3.8	98	197	295	8.7	98	3779	21549	6.1	98	492	886
14000-15000	1.2	98	197	197	2.3	98	98	295	7.7	197	3576	28112	4.2	98	689	1476
15000-16000	0.7	98	98	98	2.4	98	98	197	5.6	98	2478	19246	4.2	98	648	1824
16000-17000	1.9	131	184	328	1.9	98	184	328	7.1	623	3675	18471	5.2	184	492	1148
17000-18000	0.7	184	184	184	1.9	184	184	184	7.3	636	5885	17881	4.7	188	656	1476
18000-19000	0.5	184	184	184	0.7	184	184	184	18.8	589	6274	16569	8.7	184	492	828
19000-20000	0.7	184	184	184	1.2	184	184	184	5.5	755	6316	15428	5.7	184	492	828

0000Z

BASE FT EQL	DUCTS THK PERCENTILES				SRLS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XPRG	10%	50%	90%	XPRG	10%	50%	90%	XPRG	10%	50%	90%	XPRG	10%	50%	90%
2000-3000	0.9	69	463	758	2.2	69	364	618	94.1	2717	6368	31993	6.3	98	364	628
3000-4000	0.2	295	295	295	1.1	98	197	689	7.6	1398	3642	21843	1.9	98	295	935
4000-4500	0.5	395	394	492	0.3	98	98	98	1.4	157	2116	7864	0.5	98	295	591
4500-5000	0.6	98	344	591	4.1	98	492	984	4.4	364	14889	28692	0.5	295	689	886
5000-6000	0.4	197	197	689	3.7	295	492	1122	6.3	1565	13862	29758	0.3	295	492	689
6000-7000	6.9	197	394	689	7.6	98	295	689	8.8	118	5413	28635	1.8	295	591	2264
7000-8000	0.5	197	394	591	16.5	98	394	689	13.3	98	4377	27346	3.1	157	648	1348
8000-9000	7.3	197	394	492	15.8	98	197	492	20.5	98	2461	26412	7.6	148	648	1575
9000-10000	3.1	128	295	492	8.2	98	295	492	12.1	98	2264	25132	7.2	98	492	1824
10000-11000	2.8	98	197	295	5.7	98	295	394	18.5	98	4823	24935	6.4	98	689	1575
11000-12000	1.5	98	197	285	3.7	98	197	582	7.2	98	1476	22459	3.7	98	689	1378
12000-13000	1.3	98	197	394	3.7	98	197	295	8.2	98	2264	22891	6.1	98	689	1575
13000-14000	1.2	98	197	295	3.4	98	197	295	8.4	98	2772	21451	8.4	98	591	1228
14000-15000	1.3	98	98	197	4.9	98	197	295	13.1	98	3158	28386	6.7	98	443	1883
15000-16000	0.9	98	98	98	3.7	98	197	295	18.8	98	2698	19423	7.9	98	525	984
16000-17000	0.4	131	184	184	2.1	115	184	328	9.4	482	5787	18781	7.8	295	492	987
17000-18000	0.1	184	184	184	1.2	184	184	328	6.7	623	17861	17717	6.9	184	656	1148
18000-19000	1.2	184	184	184	1.6	184	184	328	14.8	984	15912	16733	8.7	328	492	828
19000-20000	0.2	184	184	184	0.8	184	184	328	8.1	1558	15893	15383	6.2	188	492	828

1200Z

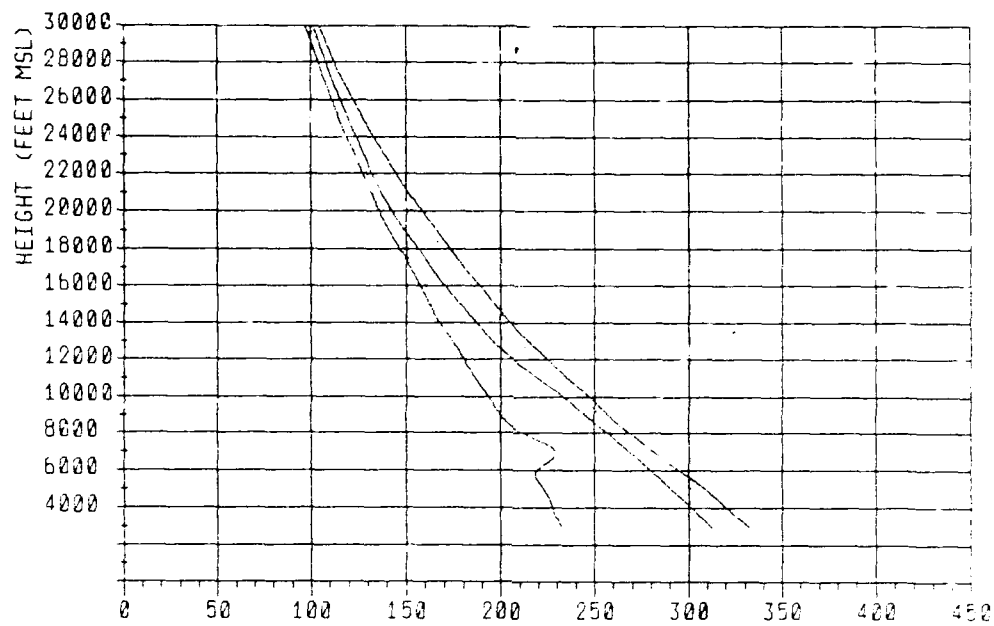
FIGURE B-8-1-D

B-125

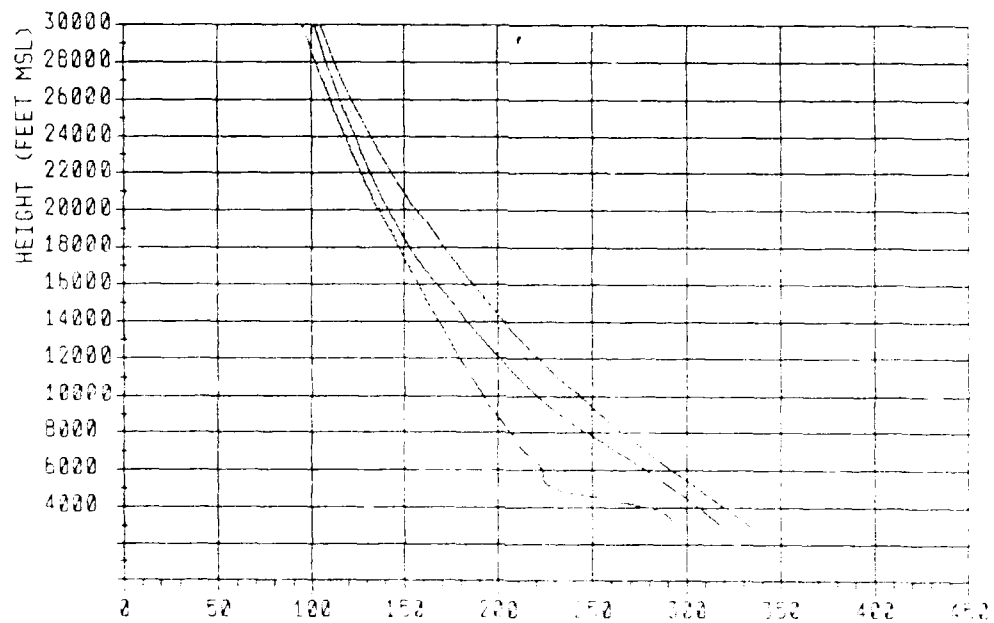
TEGUCIGALPA

WET-DRY TRANSITION

N PERCENTILES



N (N-Units) 0000Z

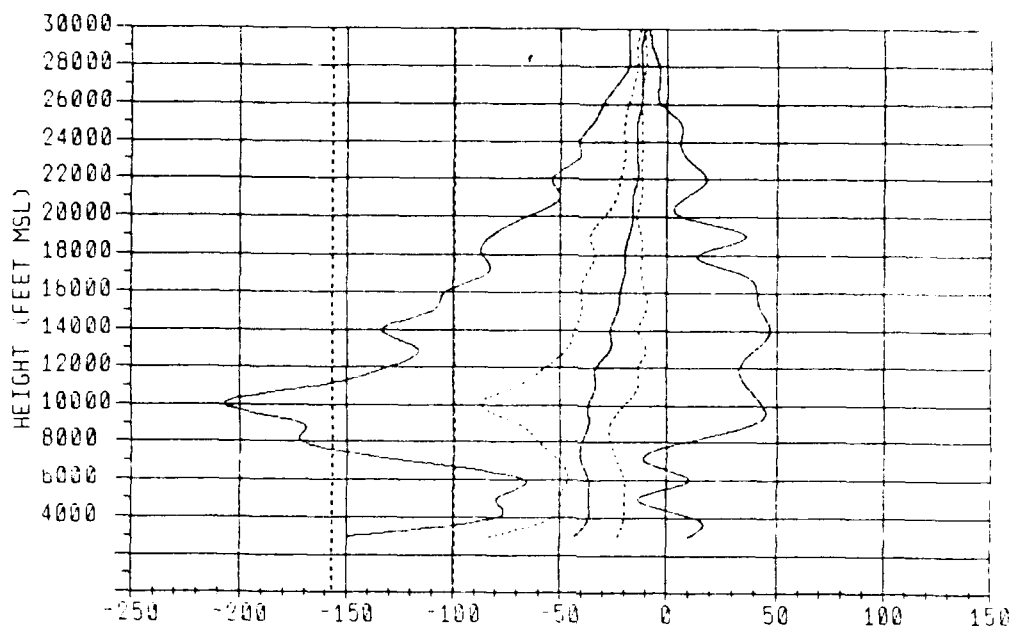


N (N-Units) 1200Z

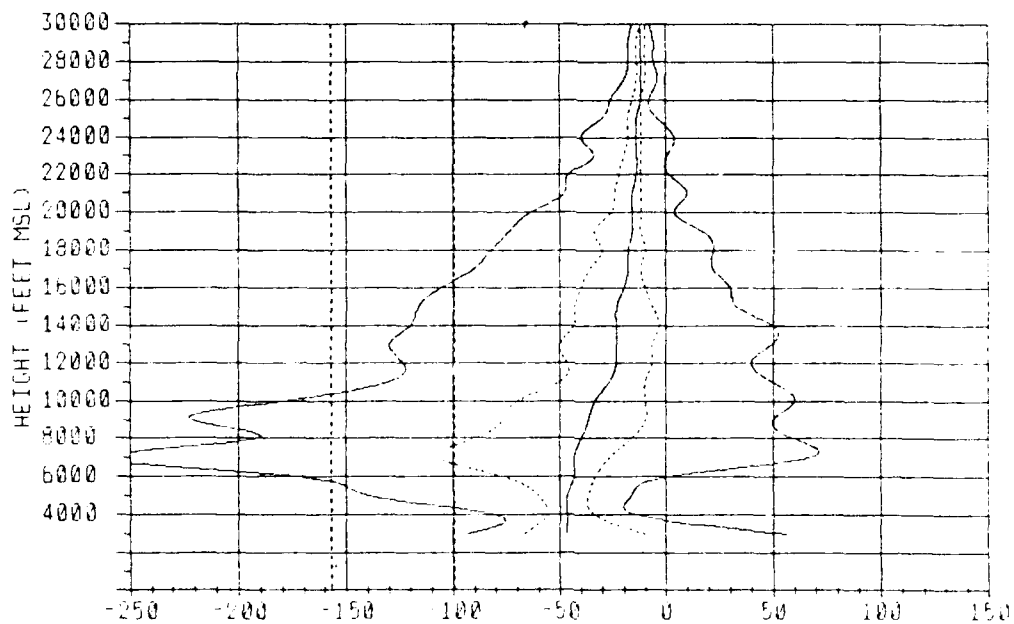
FIGURE B-8-2-A

B-126

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-8-2-B

THICKNESS STATISTICS

BASE FT RSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x
3500-3500	3.9	43	266	264	9.1	69	364	634	91.8	4278	9098	31993	2.2	328	689	1742
3500-4000	0.0				0.4	984	984	984	9.5	689	9449	31500	1.3	293	886	1181
4000-4500	0.0				0.0				0.0				0.0			
4500-5000	0.0				0.8	98	246	394	7.1	3583	14089	30278	2.1	293	293	1078
5000-6000	0.0				0.4	197	197	197	1.7	197	8629	19628	0.8	293	1288	2284
6000-7000	0.0				0.0				0.0	3445	15962	28479	1.2	293	293	787
7000-8000	2.1	98	197	394	4.1	98	394	738	3.7	98	4327	27986	0.4	591	591	591
8000-9000	3.7	197	394	591	6.6	98	344	699	6.2	98	886	24739	3.7	98	344	1555
9000-10000	3.7	98	293	394	3.3	98	197	571	8.7	98	886	25821	5.8	148	591	922
10000-11000	8.8	98	293	463	16.3	98	197	394	23.4	98	3986	24837	7.1	98	394	1543
11000-12000	2.5	98	246	293	8.8	98	293	492	15.5	287	4282	23842	6.3	98	394	1516
12000-13000	2.9	98	293	394	4.2	98	98	374	8.8	98	2658	22868	5.4	98	689	1288
13000-14000	2.5	98	148	293	5.9	98	246	492	10.9	98	1476	21195	8.8	177	591	1288
14000-15000	2.9	98	98	293	5.0	98	197	394	12.6	128	2658	20387	7.9	98	648	1161
15000-16000	1.7	98	197	197	4.6	98	197	394	11.7	98	2928	19423	7.5	98	492	1287
16000-17000	0.0				2.9	164	164	328	9.6	283	2928	18695	8.8	198	492	1115
17000-18000	0.4	164	164	164	1.7	164	164	164	12.1	262	7546	17881	6.3	164	328	984
18000-19000	1.7	164	164	164	3.3	164	164	328	10.5	853	15912	16788	8.4	328	656	968
19000-20000	0.9	164	164	164	1.3	164	164	164	7.0	1688	15892	15617	3.9	164	492	828

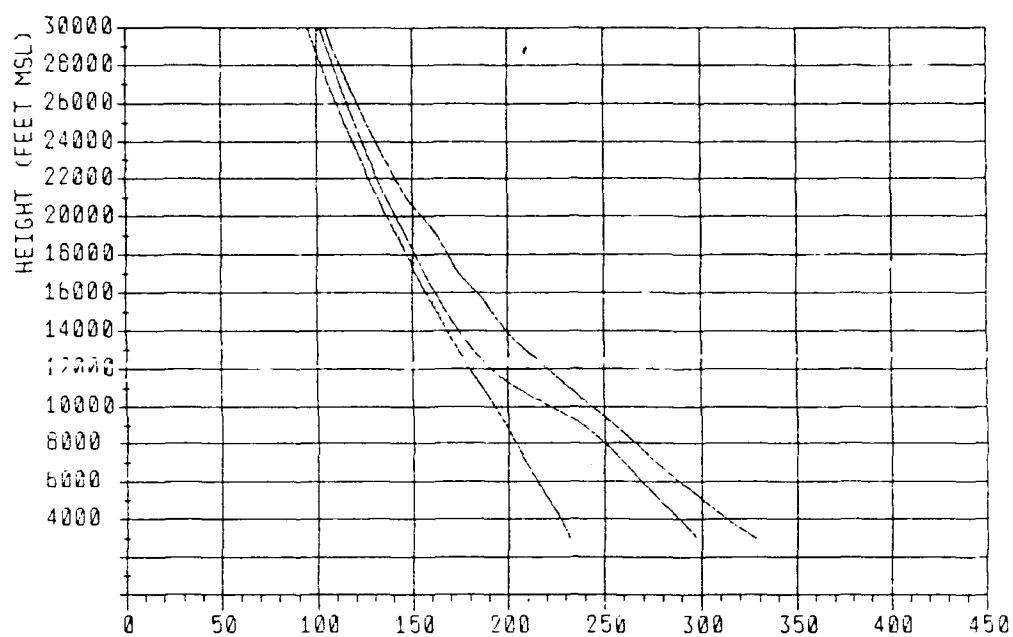
0000Z

BASE FT RSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x	XPRQ	10x	50x	90x
2500-3500	0.3	266	266	266	2.0	69	364	463	90.3	2845	6663	31993	11.4	217	364	639
3500-4000	0.0				0.3	98	98	98	10.8	1389	3888	16158	0.3	98	148	197
4000-4500	0.3	293	293	293	0.0				0.7	4724	3216	5788	0.0			
4500-5000	0.9	197	293	293	2.2	98	197	591	6.6	5118	14089	30258	0.9	293	394	394
5000-6000	2.2	98	394	591	3.7	98	492	886	4.3	837	8432	29887	0.3	591	591	591
6000-7000	5.0	98	394	591	12.1	98	492	886	8.7	118	1033	17421	2.5	98	689	1575
7000-8000	10.2	98	394	492	16.1	98	293	628	16.1	98	2165	27238	5.6	98	394	1358
8000-9000	6.2	188	293	492	12.4	98	293	638	20.2	266	3586	26835	8.1	364	689	1732
9000-10000	4.3	148	293	443	10.6	98	197	394	15.5	98	3248	25389	6.2	98	293	984
10000-11000	5.9	98	293	394	5.9	98	293	531	18.4	157	2984	24935	9.1	98	591	1476
11000-12000	1.9	98	197	293	4.4	98	197	344	11.9	98	1673	23616	7.2	98	541	1389
12000-13000	1.6	98	197	197	4.7	98	293	413	9.4	98	2116	22779	7.2	98	689	1752
13000-14000	2.8	98	197	293	5.3	98	197	287	11.0	98	3215	21392	9.7	98	689	1752
14000-15000	2.8	98	98	293	5.6	98	197	293	16.9	98	3232	20881	7.8	98	648	1243
15000-16000	2.5	98	197	293	5.0	98	197	341	11.6	197	6791	19817	5.3	197	591	1043
16000-17000	0.3	98	98	98	2.5	98	164	328	9.1	331	13842	18832	4.7	144	689	1188
17000-18000	0.9	164	164	164	2.5	164	246	328	8.0	476	9678	17586	6.3	164	492	1118
18000-19000	1.6	164	164	164	1.3	164	164	164	12.2	164	15912	16651	7.2	164	492	888
19000-20000	0.3	164	164	164	1.6	164	164	328	2.6	492	14928	15584	3.6	328	492	984

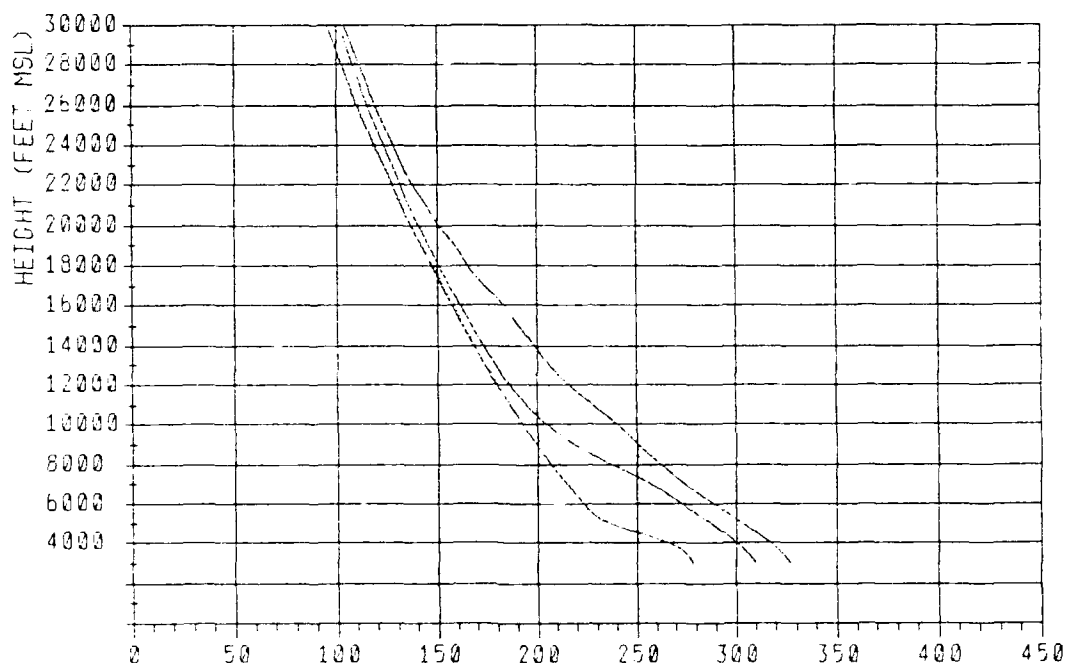
1200Z

FIGURE B-8-2-D

N PERCENTILES



N (N-Units) 0000Z



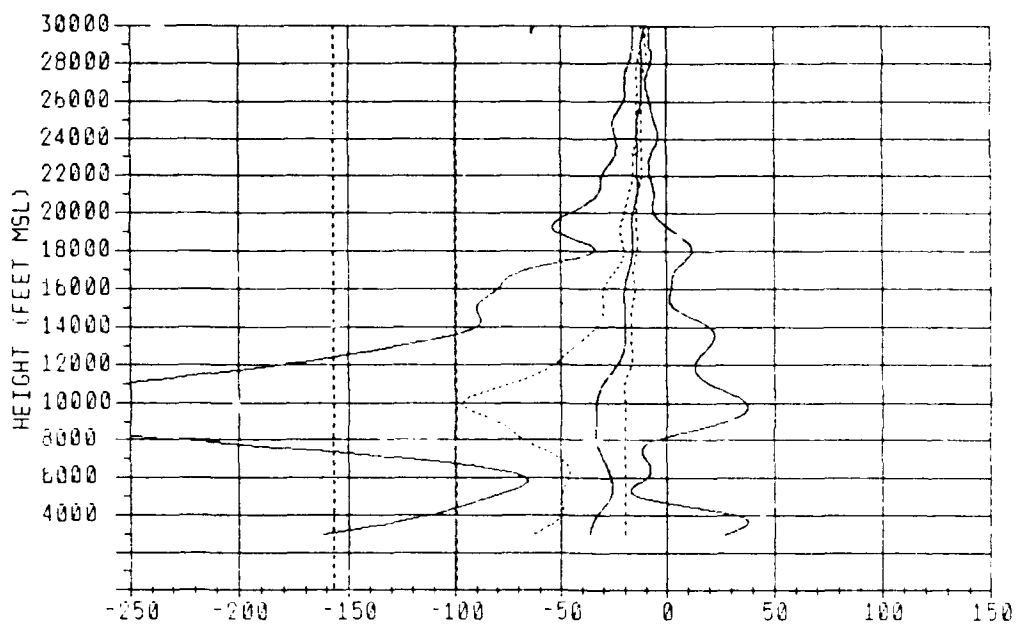
N (N-Units) 1200Z

FIGURE B-8-3-A

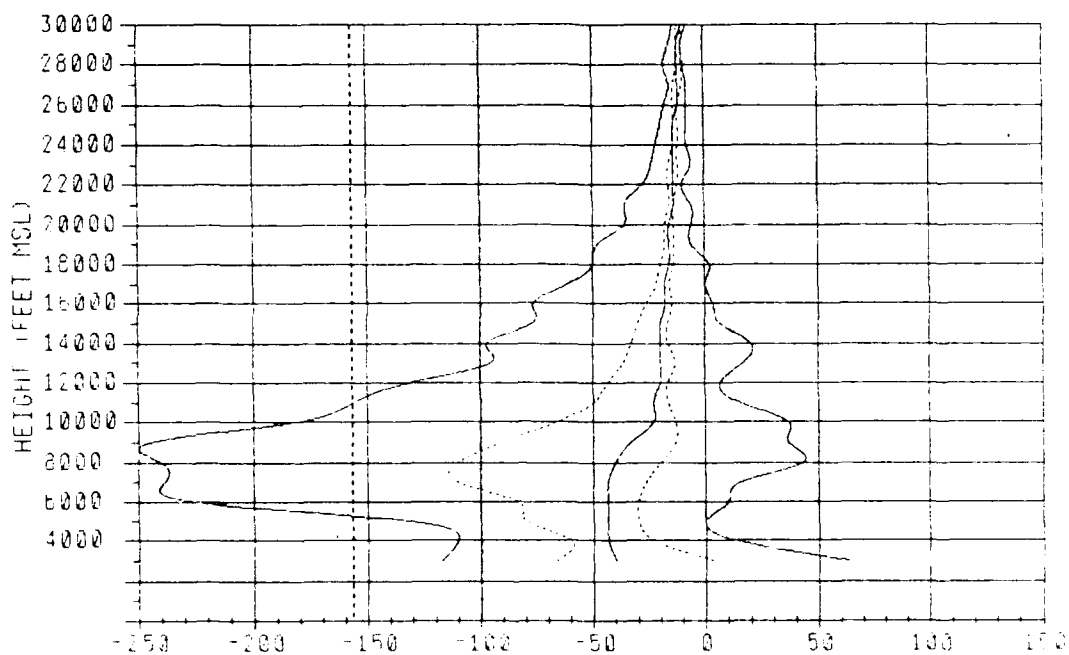
TEGUCIGALPA

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-8-3-B

B-131

THICKNESS STATISTICS

BASE FT NSL	XPRQ	DUCTS THK PERCENTILES			XPRQ	SRLRS THK PERCENTILES			XPRQ	NORMAL THK PERCENTILES			XPRQ	SUB THK PERCENTILES		
		10X	50X	90X		10X	50X	90X		10X	50X	90X		10X	50X	90X
2500-3500	2.1	141	266	1250	3.4	69	364	1027	93.1	4684	7057	31977	4.1	292	659	1742
3500-4000	0.5	197	591	944	0.9	98	591	1003	4.4	197	6594	31333	0.9	295	904	1200
4000-4500	0.0				0.2	492	492	492	0.5	5985	9334	12763	0.0			
4500-5000	0.7	197	295	295	0.4	98	148	197	10.4	3730	11892	30250	1.7	197	295	295
5000-6000	0.0				0.0				1.9	4429	13911	30152	0.4	197	640	1003
6000-7000	0.6	98	197	197	1.3	98	443	689	0.6	1003	3445	4527	0.4	492	707	1003
7000-8000	1.7	98	295	591	3.4	98	295	689	4.5	295	7185	27297	1.1	197	707	1101
8000-9000	0.4	197	394	492	0.0	98	197	522	0.0	295	19751	26904	0.9	98	394	1370
9000-10000	14.0	98	295	423	12.3	98	197	591	14.0	295	25230	26010	1.1	197	492	806
10000-11000	12.2	98	295	394	10.5	98	197	492	20.0	98	24246	24935	6.4	98	443	1319
11000-12000	7.8	167	295	394	10.3	98	197	394	15.1	325	23262	23951	2.6	98	492	1516
12000-13000	4.3	98	295	394	6.3	98	197	364	9.1	98	22179	22060	2.6	98	806	1496
13000-14000	2.4	98	197	374	4.3	98	197	295	7.0	98	21096	21902	2.0	98	492	707
14000-15000	0.9	98	197	197	1.9	98	98	295	4.1	98	12615	20703	2.6	98	591	904
15000-16000	0.9	98	197	197	3.0	98	148	344	5.2	167	19079	19740	1.3	98	295	020
16000-17000	1.3	98	164	230	1.7	164	164	164	4.3	755	10045	10537	3.0	164	492	935
17000-18000	0.4	164	164	164	0.4	164	164	164	2.2	1001	9679	17701	2.4	164	656	1575
18000-19000	0.2	164	164	164	0.4	164	164	164	4.0	550	15912	16174	3.5	164	492	755
19000-20000	0.0				1.1	164	164	164	2.7	069	15174	15504	1.6	320	656	020

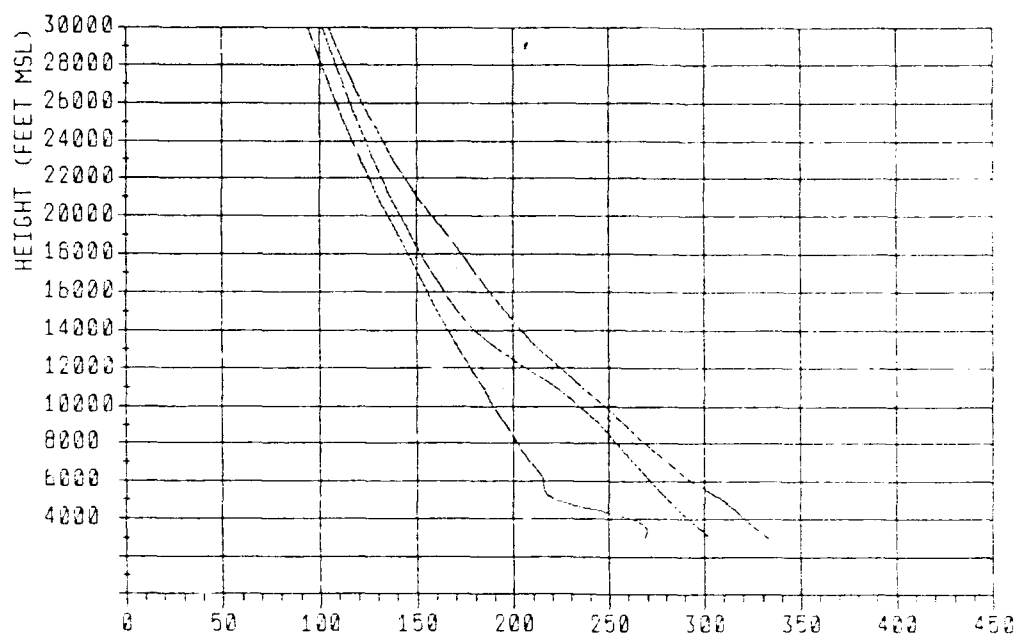
0000Z

BASE FT NSL	XPRQ	DUCTS THK PERCENTILES			XPRQ	SRLRS THK PERCENTILES			XPRQ	NORMAL THK PERCENTILES			XPRQ	SUB THK PERCENTILES		
		10X	50X	90X		10X	50X	90X		10X	50X	90X		10X	50X	90X
2500-3500	0.4	463	512	561	2.0	69	266	463	06.4	1644	5187	31993	16.3	266	463	750
3500-4000	0.7	197	344	492	1.5	197	492	1003	13.6	1614	3240	6940	2.6	98	443	904
4000-4500	0.2	591	591	591	0.9	197	394	689	5.3	1476	3150	6900	0.7	98	148	295
4500-5000	1.1	197	295	492	6.2	98	394	904	4.1	394	13045	30250	1.6	98	295	2559
5000-6000	2.2	98	394	600	5.4	98	394	827	9.6	1101	29217	30003	0.7	98	443	1476
6000-7000	7.9	197	492	591	10.0	98	295	720	9.3	217	2756	20715	2.1	98	295	1122
7000-8000	13.1	197	394	531	17.3	98	295	591	17.3	98	5216	27906	3.9	197	492	1329
8000-9000	14.0	98	394	492	20.2	98	295	591	25.6	167	7302	27002	5.4	98	640	1370
9000-10000	7.9	197	295	492	12.5	98	197	423	10.9	98	14062	25021	4.7	98	492	965
10000-11000	5.0	98	197	394	9.1	98	197	394	16.5	591	24345	25034	3.9	256	730	1319
11000-12000	4.9	98	246	295	6.3	98	197	394	10.0	98	22163	23951	3.5	98	394	945
12000-13000	1.9	98	197	295	4.4	98	197	394	6.7	98	22179	22060	2.5	98	689	1070
13000-14000	2.3	98	197	256	2.0	98	197	315	6.1	98	20990	21004	3.2	98	689	1240
14000-15000	1.4	98	148	295	3.3	98	197	295	6.0	3010	20407	20001	2.1	120	689	1390
15000-16000	0.5	98	98	197	1.2	98	148	394	3.3	1500	19177	19007	2.1	107	705	1200
16000-17000	5.5	164	164	295	1.2	131	164	320	3.3	656	10537	10931	1.6	131	550	020
17000-18000	0.0				0.5	164	164	320	1.6	164	17553	17001	1.2	492	1140	1640
18000-19000	0.4	164	164	164	1.1	164	164	164	3.5	020	16076	16733	1.6	164	164	020
19000-20000	0.0				0.2	164	164	164	0.5	656	2461	15420	0.7	320	730	904

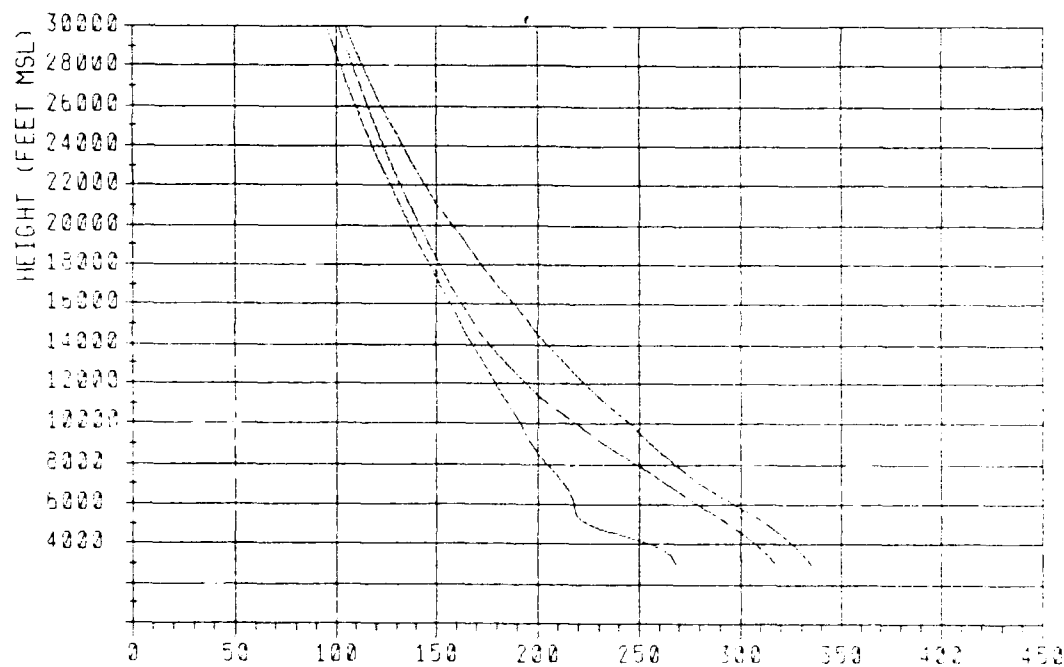
1200Z

FIGURE B-8-3-D

N PERCENTILES



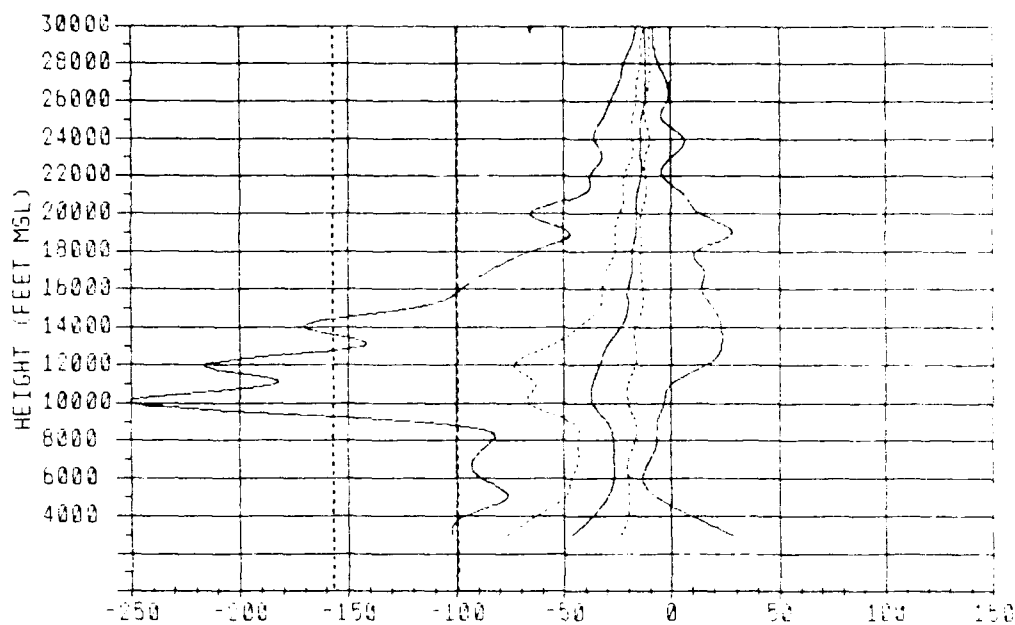
N (N-Units) 0000Z



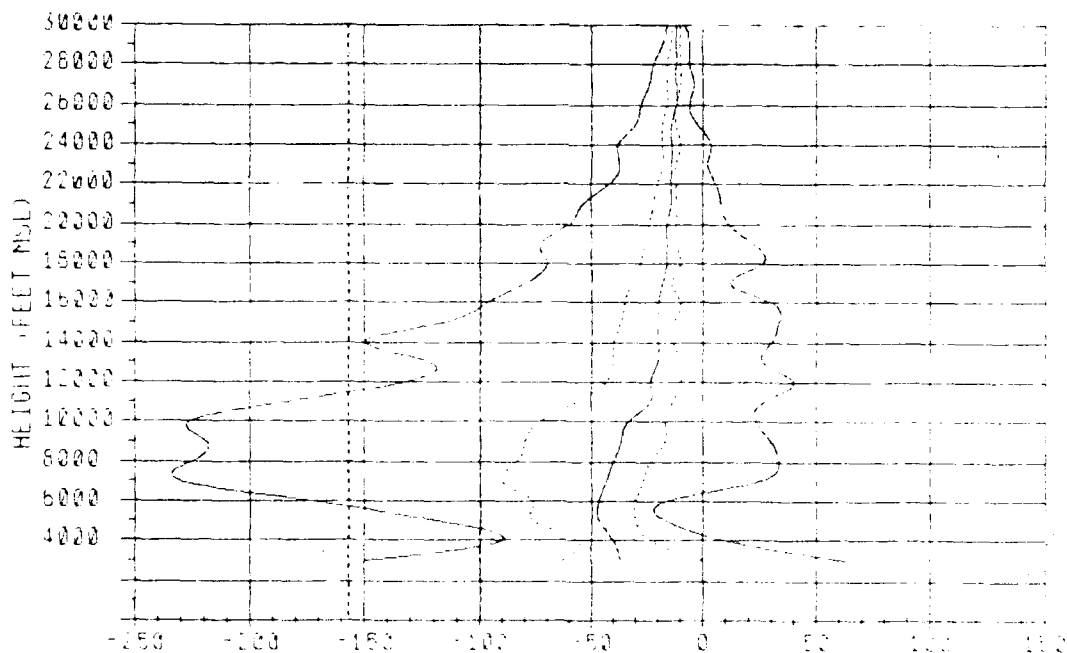
N (N-Units) 1200Z

FIGURE 5-6-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-8-4-B

THICKNESS STATISTICS

BASE FT NBL	DUCTS TNK PERCENTILES			BRLRS TNK PERCENTILES			NORMAL TNK PERCENTILES			SUB TNK PERCENTILES		
	XPRQ	10%	50%	90%	XPRQ	10%	50%	90%	XPRQ	10%	50%	90%
2570-3500	0.0				2.4	43	120	1322	96.1	5379	9222	31966
3500-4000	0.0				0.0				2.9	3347	7037	31333
4000-4500	0.0				0.5	394	394	394	1.5	98	14698	30742
4500-5000	1.4	197	295	295	0.0				10.8	6840	14009	30299
5000-6000	0.5	394	394	394	0.9	394	541	689	1.4	13911	14073	14073
6000-7000	0.0				0.9	197	344	492	2.2	1070	11024	20479
7000-8000	0.4	391	591	591	1.3	98	394	394	2.2	295	5610	16011
8000-9000	0.4	197	197	197	2.2	295	295	787	2.2	98	2953	26116
9000-10000	2.2	197	394	492	3.6	98	394	787	4.0	787	14534	25624
10000-11000	0.1	98	295	404	10.8	98	295	492	12.1	1299	9958	24660
11000-12000	7.7	98	295	394	12.2	98	197	591	12.2	335	23163	23872
12000-13000	6.0	98	197	335	12.2	98	197	394	10.9	1102	22277	22868
13000-14000	4.1	98	295	394	6.4	98	197	394	10.5	98	9695	21795
14000-15000	4.6	98	197	295	5.9	98	98	295	8.2	98	4700	25001
15000-16000	1.4	197	295	295	5.9	98	98	354	7.8	98	3543	19225
16000-17000	0.5	164	164	164	1.4	131	164	328	5.0	453	11044	10062
17000-18000	0.9	164	164	164	1.4	164	164	328	5.0	164	2707	17307
18000-19000	0.0				0.9	164	164	164	7.8	787	14100	16150
19000-20000	0.0				1.0	164	246	328	1.5	1004	2609	7710

0000Z

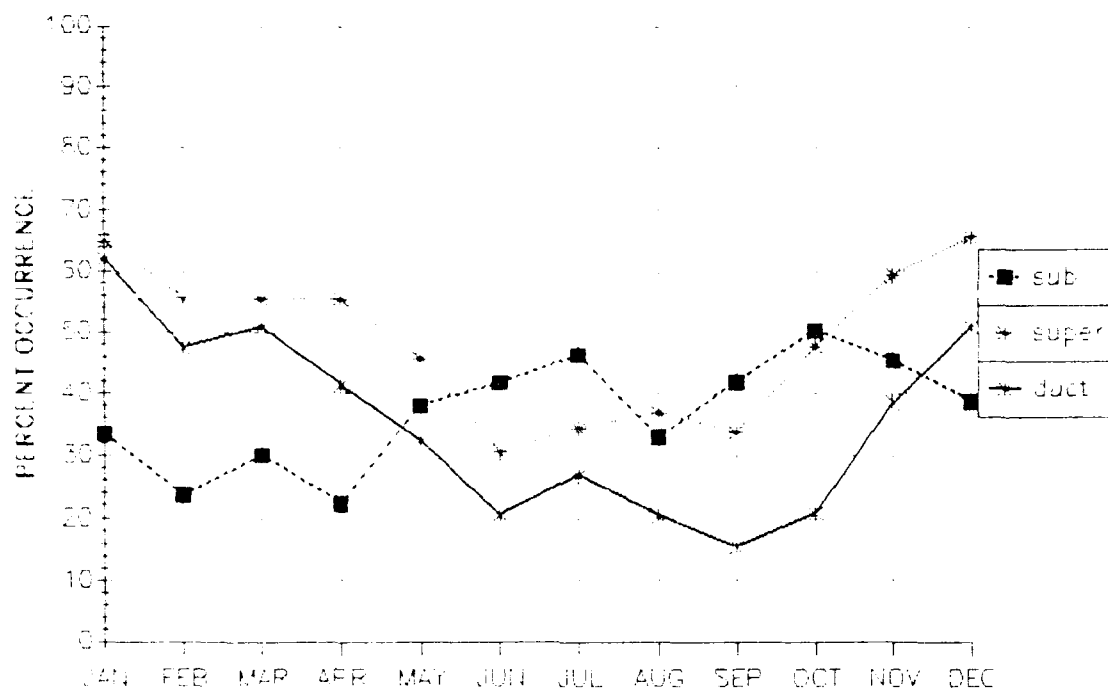
BASE FT NBL	DUCTS TNK PERCENTILES			BRLRS TNK PERCENTILES			NORMAL TNK PERCENTILES			SUB TNK PERCENTILES		
	XPRQ	10%	50%	90%	XPRQ	10%	50%	90%	XPRQ	10%	50%	90%
2570-3500	2.2	69	167	056	3.2	72	197	541	00.3	1654	6466	31993
3500-4000	0.6	98	197	295	0.6	98	197	295	13.0	787	3937	8603
4000-4500	0.3	295	295	295	0.9	394	492	492	4.1	925	3937	21390
4500-5000	0.6	295	295	295	5.0	177	492	1003	6.8	1161	14009	30309
5000-6000	2.1	98	295	591	5.0	98	394	709	8.0	1142	29168	29975
6000-7000	4.7	98	394	620	7.4	98	394	896	6.2	354	2543	20490
7000-8000	6.2	118	394	591	13.0	98	295	689	12.7	157	4023	27435
8000-9000	6.8	197	394	492	12.4	98	394	837	14.2	325	4970	26600
9000-10000	3.9	130	394	492	7.7	98	295	591	13.4	266	4478	25919
10000-11000	6.0	130	295	453	9.0	98	197	394	16.9	98	3691	24837
11000-12000	5.0	98	295	394	8.3	98	197	394	12.4	98	7513	23032
12000-13000	1.5	197	295	295	5.0	98	197	394	10.1	98	9744	22068
13000-14000	3.6	98	246	295	7.1	98	98	344	12.1	98	3835	21766
14000-15000	3.0	98	197	295	6.2	98	197	295	10.9	110	4796	20604
15000-16000	2.1	98	98	295	3.0	98	197	354	7.4	98	2543	19462
16000-17000	1.2	98	164	164	3.3	105	164	300	0.6	307	10045	10029
17000-18000	1.2	164	164	164	1.2	164	164	164	6.5	312	5414	17504
18000-19000	0.0	164	164	164	2.7	164	164	328	9.0	361	15912	16569
19000-20000	0.0	164	164	164	0.9	164	164	164	4.3	361	2953	15420

1200Z

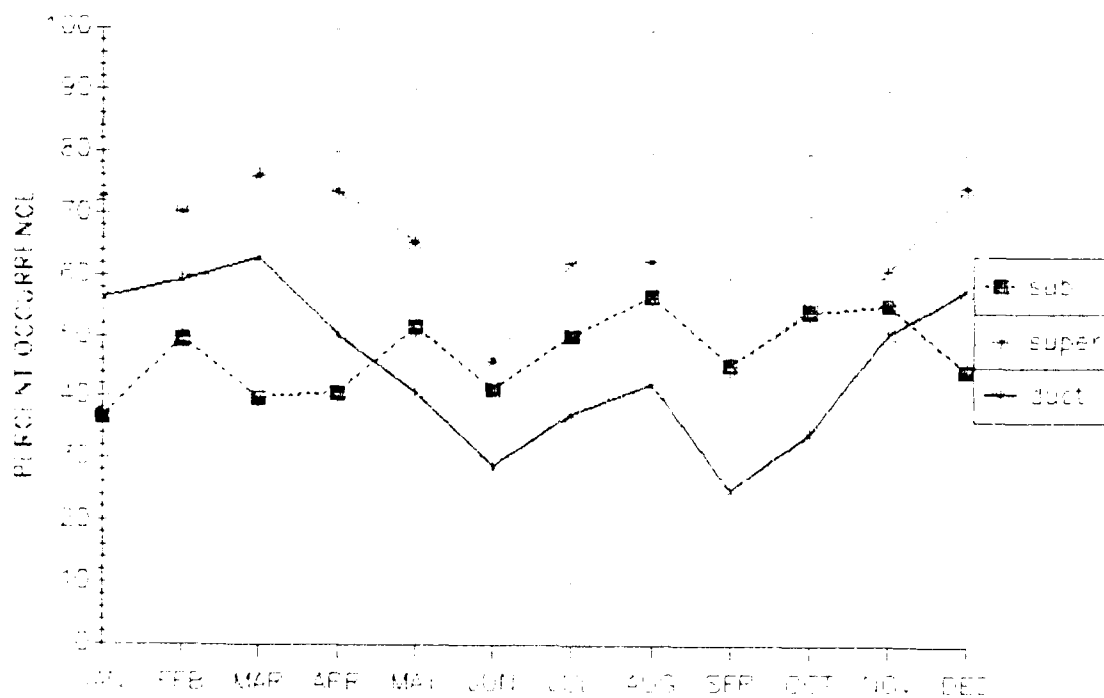
FIGURE B-8-4-C

B-137

AP PERCENT OCCURRENCE FREQUENCY



0000Z



1200Z

FIGURE B-8-5

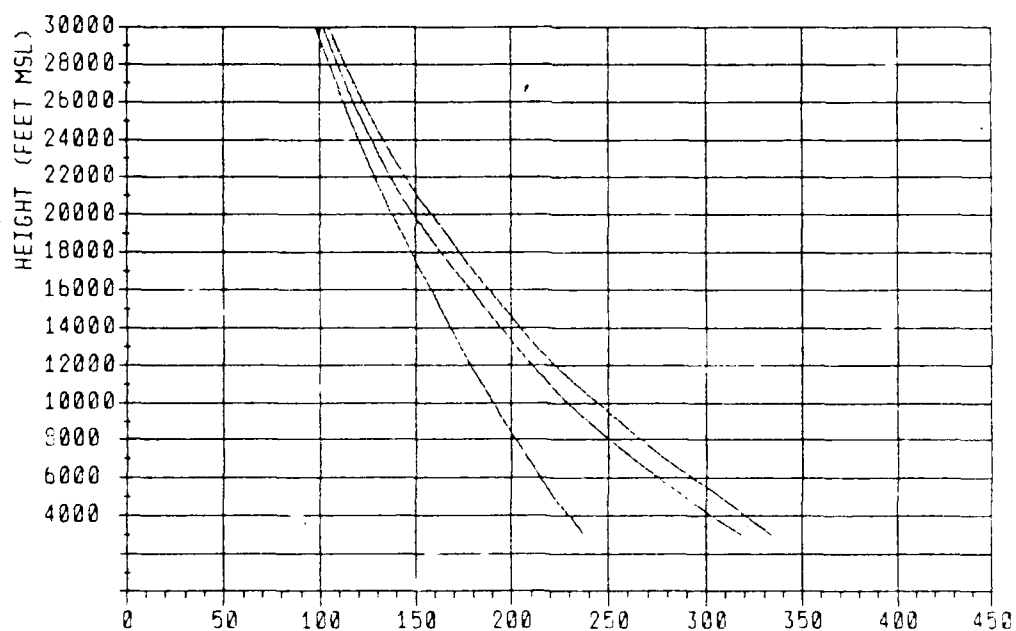
SAN JOSE

WET SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-9-1-A

B-139

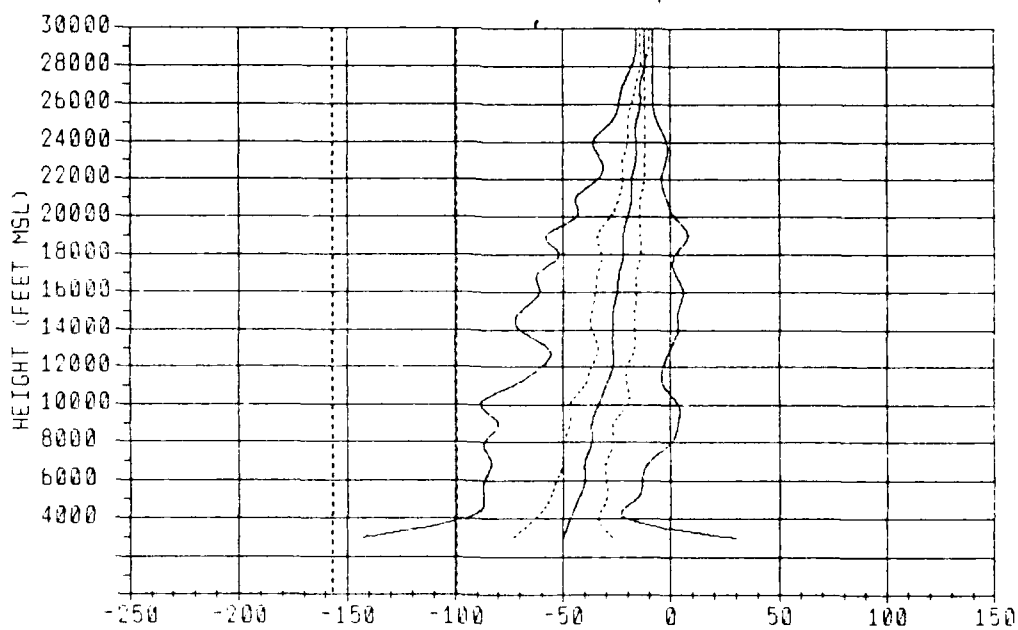
SAN JOSE

WET SEASON

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-9-1-B

B-140

SAN JOSE

WET SEASON

NO DATA AVAILABLE

0000Z

HOT PT HSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRIR	SUB
0PC-2000	248.97	218.26	223.56	222.23	228.68	-202.34	-87.58	-58.00	-4.17	81.23	1.6	3.6	9.2
2000-2300	238.34	211.41	228.88	228.38	234.56	-186.68	-82.32	-58.00	-23.00	41.66	3.8	9.3	10.9
2300-4000	234.85	202.00	213.00	221.38	227.86	-82.32	-66.66	-58.00	-32.32	-12.69	0.1	0.8	0.6
4000-4500	238.86	205.00	205.56	214.56	221.00	-92.75	-62.50	-47.91	-32.32	-28.83	0.0	1.0	0.1
4500-5000	227.00	287.19	298.25	300.19	314.78	-91.66	-68.41	-45.83	-32.32	-19.92	0.3	1.5	0.4
5000-6000	221.00	273.25	287.38	298.06	306.38	-82.32	-56.25	-42.75	-31.25	-16.66	0.1	0.8	0.0
6000-7000	214.23	262.38	273.88	282.73	298.75	-82.32	-52.88	-48.84	-29.16	-16.66	0.3	1.2	0.8
7000-8000	208.16	258.68	261.56	271.06	277.69	-82.32	-58.00	-39.58	-29.16	-18.42	0.1	1.4	1.1
8000-9000	201.58	238.38	249.18	258.75	265.56	-86.59	-58.00	-36.71	-28.69	3.26	1.0	1.4	2.1
9000-10000	194.82	227.28	237.48	246.38	253.87	-76.69	-46.74	-32.32	-23.44	6.64	0.8	0.8	2.4
10000-11000	189.18	217.18	227.28	235.38	242.48	-82.32	-46.61	-38.87	-28.83	8.00	1.1	1.2	2.8
11000-12000	182.92	207.18	217.88	224.98	238.78	-66.66	-38.97	-29.95	-19.92	-3.26	0.3	0.9	0.9
12000-13000	177.22	197.88	208.88	215.38	228.28	-68.82	-36.59	-26.69	-19.92	-6.64	0.0	0.5	1.0
13000-14000	171.78	189.38	208.88	206.88	211.00	-68.82	-32.32	-26.69	-16.66	8.00	0.1	0.5	2.0
14000-15000	166.68	188.48	192.28	198.58	202.17	-66.66	-28.71	-26.56	-16.66	3.39	0.3	0.7	3.6
15000-16000	161.88	172.98	184.28	190.38	194.28	-66.66	-26.71	-26.56	-16.66	3.26	0.3	1.0	3.2
16000-17000	156.83	165.98	176.58	182.78	186.32	-68.82	-24.51	-22.98	-16.81	6.82	0.1	0.7	3.5
17000-18000	151.38	158.78	168.58	174.38	178.88	-57.96	-22.98	-22.98	-15.94	8.00	0.1	0.3	2.1
18000-19000	145.58	151.88	168.88	166.98	178.58	-58.84	-21.97	-22.82	-13.98	7.83	1.1	0.8	4.8
19000-20000	148.68	145.48	153.18	159.98	162.48	-48.84	-28.88	-21.95	-13.98	2.83	0.1	0.4	2.8
20000-21000	136.88	139.98	146.68	152.38	155.58	-46.81	-26.81	-28.88	-12.98	8.00	0.0	0.0	2.3
21000-22000	131.68	134.98	148.78	145.88	148.92	-48.88	-22.98	-18.84	-13.98	-1.95	0.0	0.3	1.9
22000-23000	127.38	128.28	135.28	139.88	142.78	-32.82	-22.82	-17.96	-12.82	-2.82	0.0	0.0	1.8
23000-24000	122.58	125.48	129.88	132.98	136.68	-32.98	-28.88	-16.81	-12.82	-3.98	0.1	0.1	2.1
24000-25000	118.38	128.88	124.68	128.18	128.58	-32.82	-28.88	-16.81	-11.95	-2.82	0.3	0.6	2.2
25000-26000	114.42	116.78	119.88	122.98	125.28	-22.98	-18.84	-14.86	-11.95	-7.97	0.0	0.1	0.6
26000-27000	110.78	112.78	115.48	118.28	128.38	-22.82	-18.81	-13.98	-11.95	-7.97	0.0	0.1	0.9
27000-28000	106.58	108.58	118.98	112.58	115.48	-28.88	-16.81	-12.98	-11.95	-18.88	0.0	0.0	0.1
28000-29000	102.08	104.78	106.78	108.88	118.38	-17.96	-14.86	-12.82	-18.88	-8.83	0.0	0.0	0.1
29000-30000	99.62	101.28	102.88	104.98	106.28	-16.81	-13.98	-12.82	-18.88	-18.88	0.0	0.0	0.0
30000-31000	96.84	97.98	99.58	101.28	102.38	-14.86	-12.82	-11.95	-18.88	-7.97	0.0	0.0	0.0
31000-32000	92.88	94.48	96.88	97.68	98.78	-27.96	-12.82	-11.95	-18.88	-8.83	0.0	0.0	0.3
32000-33000	89.28	98.98	92.58	94.18	95.88	-12.82	-12.82	-18.88	-18.88	-7.97	0.0	0.0	0.1
33000-34000	85.88	87.68	89.18	90.48	91.28	-21.95	-11.95	-18.88	-18.88	-7.97	0.0	0.0	0.0
34000-35000	82.28	85.68	86.58	87.48	88.88	-22.98	-12.82	-18.88	-18.88	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-9-1-C

B-141

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE PT NSL	XPRG	DUCTS THK PERCENTILES			XPRG	GRLEB THK PERCENTILES			XPRG	NORMAL THK PERCENTILES			XPRG	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
28PC-3000	1.6	150	230	426	5.6	197	230	525	86.3	5052	32252	32252	9.2	197	295	394
3000-3500	2.7	167	266	315	5.3	98	266	370	34.5	5964	31924	32189	4.0	187	266	591
3500-4000	8.0				0.2	492	738	904	1.3	335	31333	31599	0.1	295	295	295
4000-4500	0.0				0.6	295	394	787	0.3	3740	30742	30939	0.0			
4500-5000	0.3	295	295	295	0.9	98	246	886	4.3	5216	21917	30447	0.4	197	295	295
5000-6000	0.1	197	197	197	0.2	591	689	787	0.6	787	11501	20052	0.0			
6000-7000	0.4	197	295	492	1.1	118	394	787	1.3	98	7936	20577	0.0	98	394	1181
7000-8000	0.1	98	98	98	1.1	207	443	778	1.0	3022	27199	27790	0.0	197	1003	1003
8000-9000	1.0	98	197	591	1.1	98	295	768	2.5	98	6004	26667	1.5	98	787	2087
9000-10000	0.0	197	197	492	0.5	197	295	591	1.0	98	6824	25400	1.1	98	197	591
10000-11000	1.0	98	295	492	1.2	98	197	374	5.9	404	24197	24965	2.1	98	344	689
11000-12000	0.3	98	295	394	0.6	98	295	689	1.5	98	3150	23656	0.9	98	295	1003
12000-13000	0.0				0.4	197	246	492	1.3	1200	22622	23966	0.7	98	344	1476
13000-14000	0.1	197	197	197	0.5	98	197	295	1.5	98	4364	21902	1.0	98	443	994
14000-15000	0.5	98	98	295	0.7	98	197	295	3.5	98	9170	20099	3.0	98	344	984
15000-16000	0.3	98	98	98	0.9	98	197	295	3.3	130	19120	19017	1.9	98	623	1096
16000-17000	0.1	164	164	164	0.5	98	164	164	2.5	164	10045	10701	2.5	164	492	1394
17000-18000	0.1	164	164	164	0.3	164	164	164	2.9	1116	17225	17001	0.9	164	320	656
18000-19000	1.1	164	164	164	0.0	164	164	164	4.0	3051	15912	16240	4.7	164	492	820
19000-20000	0.1	164	164	164	0.4	164	164	320	2.9	673	15256	15740	1.7	164	730	1003

1200Z

FIGURE B-9-1-D

B-142

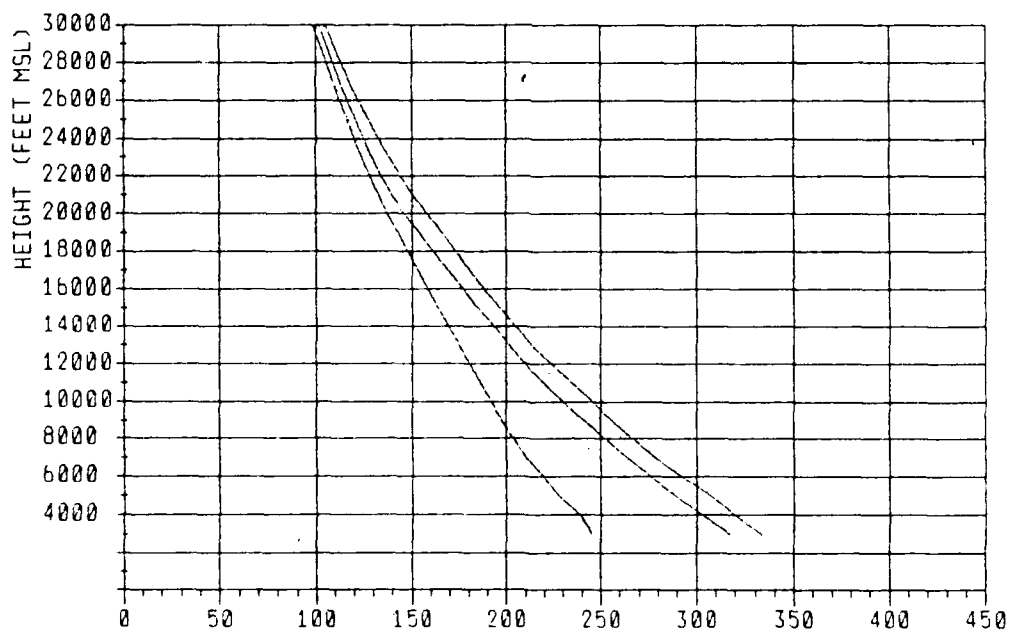
SAN JOSE

WET-DRY TRANSITION

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-9-2-A

B-143

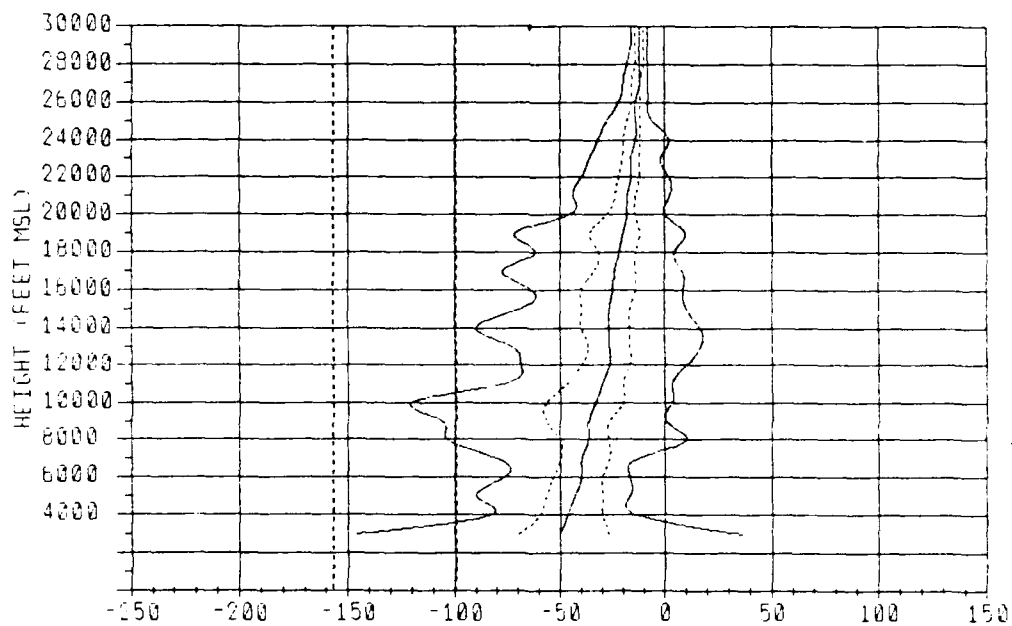
SAN JOSE

WET-DRY TRANSITION

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-9-2-B

B-144

NO DATA AVAILABLE

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	PERCENT OCCURRENCE SRLR	SUB
		10%	50%	90%	99%		10%	50%	90%	99%			
SPC-3000	295.89	316.21	324.50	331.75	337.87	-228.75	-113.75	-54.16	0.00	56.25	3.7	9.7	9.3
3000-3500	245.51	308.26	319.44	327.87	332.87	-156.25	-83.33	-50.00	-22.91	52.06	2.7	11.7	10.8
3500-4000	238.55	308.06	311.75	321.25	326.64	-89.58	-62.50	-47.91	-29.16	-12.50	0.0	1.2	1.2
4000-4500	234.47	292.75	304.88	314.50	319.75	-77.88	-60.41	-45.83	-29.16	-12.50	0.2	0.2	0.2
4500-5000	235.07	285.69	298.06	308.19	314.53	-96.44	-58.33	-43.75	-29.16	-10.42	1.0	0.8	1.2
5000-5500	224.48	274.25	287.38	298.00	305.50	-87.50	-58.33	-43.75	-29.16	-16.66	0.2	1.3	1.0
5500-6000	218.19	268.56	274.56	283.79	290.51	-75.00	-52.00	-39.58	-29.16	-14.58	0.4	1.0	0.6
6000-6500	208.90	247.31	262.88	271.75	277.38	-83.33	-50.00	-39.58	-27.08	-12.50	0.4	1.2	1.0
6500-7000	202.82	234.30	250.70	258.06	265.75	-100.00	-50.00	-36.71	-25.00	13.28	1.0	2.3	2.1
7000-10000	195.77	222.30	238.60	248.00	253.70	-106.64	-53.38	-36.59	-23.44	0.00	1.5	2.7	2.3
10000-11000	189.20	209.60	227.40	236.90	243.15	-103.38	-53.25	-33.33	-20.03	3.26	0.0	2.7	2.5
11000-12000	183.42	198.55	216.90	225.80	231.70	-73.35	-43.36	-30.07	-19.92	3.39	0.4	1.2	3.3
12000-13000	178.00	190.60	207.70	215.40	220.80	-73.30	-36.71	-26.69	-16.66	6.77	0.2	1.2	4.5
13000-14000	172.26	182.80	199.30	206.60	211.20	-73.30	-36.59	-26.69	-16.66	17.77	0.4	1.4	4.7
14000-15000	166.54	174.70	190.88	198.10	202.20	-86.71	-40.10	-26.67	-16.66	6.64	0.8	1.9	3.9
15000-16000	161.50	167.80	182.30	190.00	193.90	-70.05	-39.97	-26.56	-16.66	13.28	0.8	1.2	4.5
16000-17000	156.20	161.30	174.30	182.41	186.20	-67.96	-36.01	-23.98	-13.98	6.64	0.6	1.4	3.9
17000-18000	150.90	154.90	166.30	174.10	177.90	-67.00	-33.98	-22.03	-13.98	6.02	0.4	0.6	4.1
18000-19000	145.19	148.50	158.40	166.40	170.50	-77.96	-33.98	-21.95	-13.98	12.03	1.0	1.0	4.7
19000-20000	140.50	143.00	150.60	158.09	162.14	-54.79	-32.03	-20.00	-13.98	-2.03	0.0	0.0	2.0
20000-21000	135.80	138.20	144.00	151.20	154.90	-46.01	-26.01	-18.04	-13.98	2.03	0.0	0.4	2.4
21000-22000	131.30	132.50	138.30	145.00	148.50	-38.00	-23.98	-17.96	-13.98	0.00	0.2	0.0	2.5
22000-23000	126.90	129.00	133.05	139.00	142.24	-40.00	-21.95	-16.01	-12.03	-1.95	0.0	0.0	2.2
23000-24000	122.27	124.20	127.90	133.00	136.30	-31.95	-20.00	-15.94	-11.95	0.00	0.0	0.0	2.7
24000-25000	118.10	119.90	123.00	127.50	130.30	-31.15	-20.00	-15.98	-11.95	-2.03	0.0	0.0	2.7
25000-26000	113.07	116.00	118.70	122.40	124.00	-22.03	-17.96	-13.98	-11.95	-7.97	0.0	0.0	0.0
26000-27000	109.62	112.10	114.60	117.80	119.76	-22.03	-16.01	-13.98	-11.95	-7.97	0.0	0.0	0.2
27000-28000	105.70	108.00	110.30	113.10	115.16	-20.00	-15.94	-12.03	-11.95	-7.97	0.0	0.0	0.2
28000-29000	101.23	104.30	106.30	108.50	110.20	-16.01	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
29000-30000	97.62	101.00	102.70	104.60	106.10	-16.01	-12.98	-11.95	-10.00	-7.97	0.0	0.0	0.2
30000-31000	94.02	97.70	99.30	101.00	102.30	-16.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.0
31000-32000	90.52	94.40	95.90	97.50	98.60	-19.51	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
32000-33000	87.00	92.40	92.40	94.00	94.90	-12.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	83.40	87.70	89.00	90.30	91.10	-20.00	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.73	85.50	86.40	87.40	88.00	-23.98	-12.03	-10.00	-8.03	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-9-2-C

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	XPRG	DUCTS THK PERCENTILES			XPRG	SRLRS THK PERCENTILES			XPRG	NORMAL THK PERCENTILES			XPRG	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
28PC-3000	3.7	33	223	348	9.7	115	230	623	79.3	5544	32232	32232	9.3	207	230	426
3000-3500	1.2	69	167	295	4.5	98	197	394	29.3	5019	31727	32109	2.3	163	266	391
3500-4000	0.0				0.2	197	197	197	2.7	2600	31333	31628	0.2	904	904	904
4000-4500	0.2	295	295	295	0.2	98	98	98	0.2	1476	1476	1476	0.0			
4500-5000	0.0	295	295	787	0.0	98	394	787	2.9	3887	14009	30349	1.0	98	295	394
5000-6000	0.0				0.0	98	492	787	1.9	98	11332	29817	0.0	98	98	1573
6000-7000	0.4	295	295	295	0.6	197	394	492	1.2	3150	22442	20971	0.4	394	541	609
7000-8000	0.4	197	246	295	1.0	197	295	609	1.3	4429	27199	28083	0.6	492	787	1573
8000-9000	0.0	98	98	394	2.3	98	394	609	2.1	98	26363	26983	1.7	118	295	1496
9000-10000	1.3	98	295	295	2.1	118	295	650	3.7	630	8022	26000	1.3	98	197	806
10000-11000	0.0	197	295	591	2.7	98	344	541	7.0	276	24394	24943	2.3	98	443	904
11000-12000	0.4	98	140	197	1.2	295	394	609	2.7	98	10332	23636	2.7	98	609	1393
12000-13000	0.2	295	295	295	1.0	98	197	492	3.1	98	7823	22504	2.7	137	394	1316
13000-14000	0.4	197	197	197	1.2	98	246	394	3.3	98	2163	21490	2.9	98	492	1181
14000-15000	0.0	98	140	197	1.9	100	246	295	3.0	98	20112	20691	2.3	98	394	1122
15000-16000	0.0	98	98	98	1.2	197	246	295	3.7	98	19120	19521	3.7	98	591	1260
16000-17000	0.6	98	164	164	1.4	98	164	164	3.3	794	10043	10931	2.3	262	820	1194
17000-18000	0.4	164	164	164	0.6	164	164	164	4.1	1190	17309	17717	1.0	164	492	960
18000-19000	1.0	164	164	164	1.0	164	164	320	6.0	262	13912	16369	4.1	164	320	656
19000-20000	0.0				0.0				2.2	2393	13256	13740	1.2	164	820	904

1200Z

FIGURE B-9-2-D

B-146

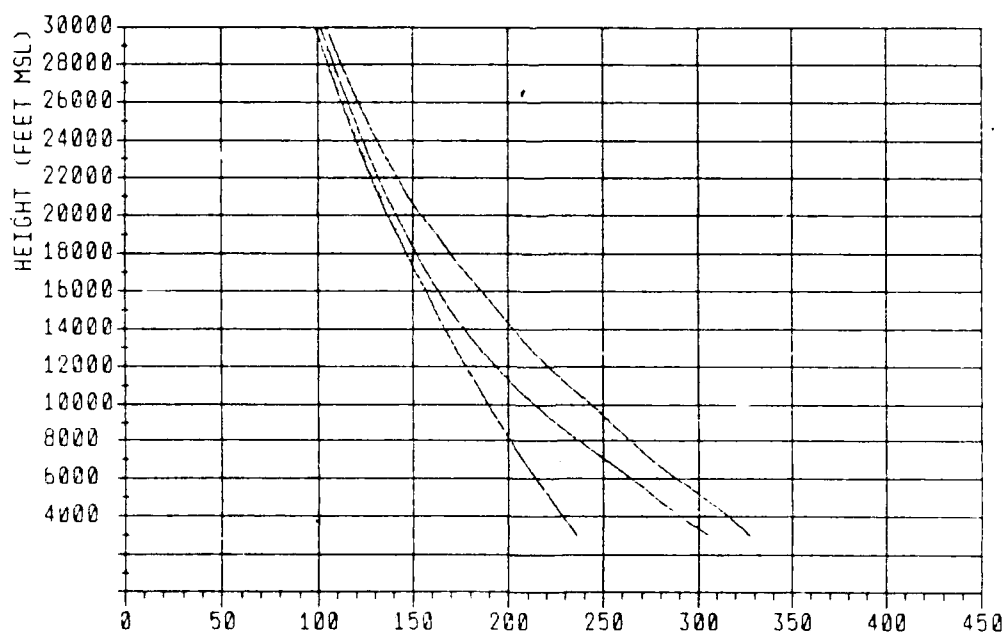
SAN JOSE

DRY SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

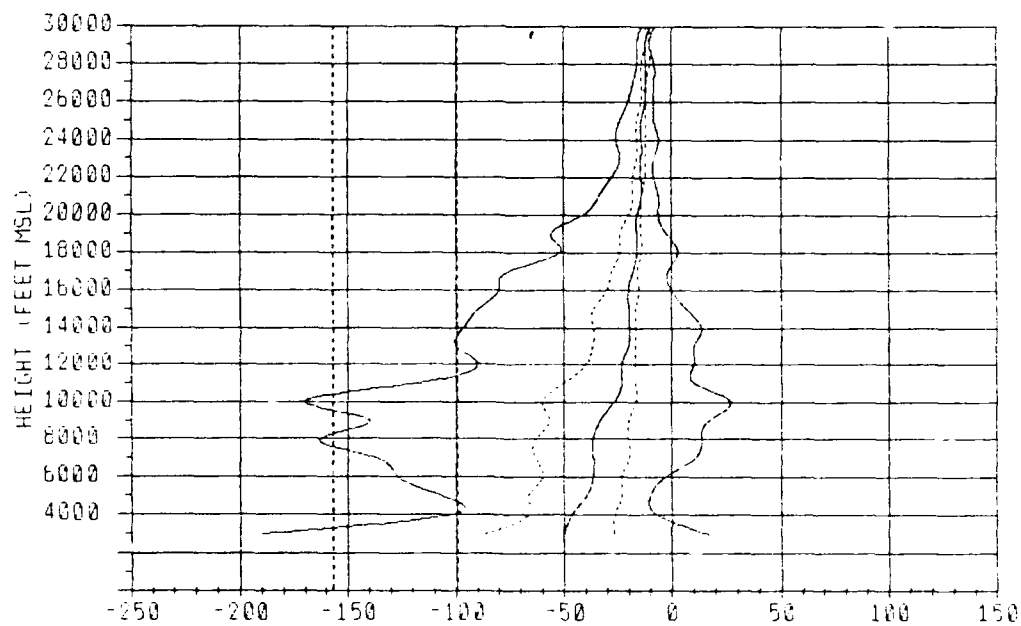
FIGURE B-9-3-A

B-147

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-9-3-B

B-148

NO DATA AVAILABLE

0000Z

HGT FT MSL	M PERCENTILES					DMDH PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
8000-20000	241.50	200.87	212.69	223.37	233.43	-246.77	-114.37	-56.25	-12.50	68.92	4.0	7.7	6.6
20000-25000	228.30	292.56	208.50	219.25	227.92	-212.29	-95.83	-52.00	-23.30	31.25	6.0	11.8	7.0
25000-40000	224.40	283.56	200.19	311.69	222.67	-120.83	-72.91	-47.91	-27.00	-0.31	0.4	3.3	1.6
40000-45000	220.61	275.14	292.88	203.00	316.32	-100.00	-66.66	-43.83	-27.00	-6.25	0.3	1.5	0.9
45000-50000	226.94	267.64	285.88	298.56	310.26	-112.50	-66.66	-43.75	-26.69	-4.96	1.0	3.2	1.5
50000-60000	221.00	252.73	275.56	289.25	301.07	-104.16	-65.49	-37.50	-23.30	-10.03	1.0	3.7	0.3
60000-70000	212.90	237.30	262.25	277.25	287.13	-127.00	-63.02	-37.50	-22.91	0.00	1.7	4.7	1.6
70000-80000	207.20	224.30	250.00	266.69	274.75	-146.09	-66.66	-36.59	-20.83	13.28	3.3	8.4	2.6
80000-90000	200.50	212.00	235.40	253.40	262.30	-160.02	-62.41	-33.33	-20.03	13.28	4.2	8.8	4.0
90000-100000	194.20	202.20	222.40	243.11	251.70	-153.04	-56.64	-32.33	-19.92	20.03	3.5	4.0	4.2
100000-110000	188.10	194.40	211.10	230.70	240.04	-156.77	-60.02	-26.69	-16.66	23.30	4.2	7.5	5.1
110000-120000	182.30	187.40	200.10	218.90	229.20	-109.60	-46.61	-23.44	-16.66	13.28	1.5	3.7	3.5
120000-130000	176.70	181.00	191.20	209.50	218.60	-86.59	-36.71	-23.30	-16.66	13.28	1.4	2.2	3.4
130000-140000	171.00	174.50	182.60	200.40	208.90	-96.74	-36.71	-20.03	-16.66	10.03	1.3	3.5	3.4
140000-150000	165.60	168.50	174.70	191.30	199.70	-92.36	-36.71	-20.03	-16.66	9.94	1.2	3.6	3.7
150000-160000	160.30	162.90	167.90	183.00	191.44	-86.71	-32.22	-20.03	-16.66	6.64	1.6	2.5	3.1
160000-170000	155.40	157.60	161.00	173.10	182.40	-84.74	-30.00	-18.04	-15.94	-4.06	1.2	2.3	1.5
170000-180000	150.30	152.20	155.70	166.10	174.43	-66.50	-26.01	-17.96	-13.98	-1.95	0.4	1.2	1.7
180000-190000	144.60	146.40	150.00	158.40	166.90	-60.00	-22.96	-16.01	-13.98	2.03	0.1	1.0	2.5
190000-200000	139.90	141.50	144.40	151.10	158.70	-47.96	-22.03	-16.01	-13.98	-6.02	0.0	0.2	0.4
200000-210000	135.50	136.90	139.60	144.53	151.90	-30.04	-20.00	-16.01	-13.98	-6.02	0.0	0.2	0.5
210000-220000	131.10	132.50	135.10	139.00	146.03	-31.93	-18.04	-14.06	-13.98	-8.03	0.0	0.0	0.7
220000-230000	126.90	128.30	130.70	133.90	140.40	-26.01	-16.01	-13.98	-12.03	-10.00	0.0	0.0	0.3
230000-240000	122.20	123.70	126.10	129.10	134.25	-23.90	-16.01	-13.98	-11.93	-7.97	0.0	0.0	0.7
240000-250000	118.10	119.50	121.60	124.30	128.00	-23.97	-16.01	-13.98	-11.93	-7.97	0.0	0.1	1.0
250000-260000	114.24	115.70	117.70	119.90	123.53	-20.00	-14.06	-13.98	-11.93	-7.97	0.1	0.0	0.3
260000-270000	110.64	112.00	113.00	115.90	118.93	-18.04	-12.90	-12.03	-11.93	-7.97	0.0	0.0	0.1
270000-280000	106.60	107.90	109.00	111.90	114.40	-17.96	-12.90	-12.03	-10.00	-8.03	0.0	0.0	0.2
280000-290000	102.12	104.30	106.00	107.70	109.70	-16.01	-12.03	-11.93	-10.00	-10.00	0.0	0.0	0.1
290000-300000	99.90	101.00	102.00	104.20	105.70	-13.94	-12.03	-11.93	-10.00	-10.00	0.0	0.0	0.0
300000-310000	96.60	97.00	99.30	100.00	102.00	-14.06	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
310000-320000	93.40	94.50	96.00	97.50	98.60	-18.04	-12.03	-10.00	-10.00	-8.03	0.0	0.0	0.2
320000-330000	89.90	90.90	92.50	94.10	95.00	-13.90	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
330000-340000	86.00	87.00	89.10	90.50	91.30	-20.41	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
340000-350000	84.70	85.60	86.50	87.50	88.00	-20.91	-11.93	-10.00	-8.03	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-9-3-C

B-149

SAN JOSE

DRY SEASON

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	XPRG	DUCTS THK PERCENTILES			XPRG	SRLRS THK PERCENTILES			XPRG	NORMAL THK PERCENTILES			XPRG	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
2500-3000	4.8	131	230	545	7.7	131	320	623	82.8	2986	12326	32252	6.6	230	320	623
3000-3500	2.9	69	266	364	6.4	90	266	787	28.7	2756	10468	32189	1.7	90	266	1437
3500-4000	0.1	90	90	90	1.1	90	492	925	4.3	335	9006	31599	0.9	90	140	904
4000-4500	0.3	90	295	492	0.4	90	246	492	1.5	1476	12582	31087	0.3	90	394	787
4500-5000	1.0	90	295	492	2.9	90	295	709	5.1	3088	30250	30378	0.7	197	295	492
5000-6000	0.4	90	295	492	1.7	90	295	609	3.5	2579	14075	30053	0.2	295	1003	1870
6000-7000	1.5	90	344	591	4.0	90	492	609	2.8	1161	12326	28982	1.5	157	806	1772
7000-8000	2.9	90	295	394	6.7	90	394	709	6.3	315	27199	27088	1.5	167	806	1535
8000-9000	3.6	197	394	492	6.7	90	344	591	9.2	482	26215	27012	2.3	157	904	2000
9000-10000	2.9	90	295	492	3.4	90	295	591	5.5	305	25477	26018	2.3	90	591	904
10000-11000	4.8	90	246	394	7.2	90	295	591	13.6	984	24443	25024	3.4	90	492	1555
11000-12000	1.2	118	295	472	3.4	90	295	394	5.5	90	23360	23951	2.1	90	492	1890
12000-13000	1.0	90	140	295	1.9	90	197	394	3.6	90	6135	22966	2.3	90	609	1505
13000-14000	1.2	90	197	295	3.3	90	197	295	5.0	90	21244	21982	1.7	90	609	1280
14000-15000	1.2	90	197	295	3.3	90	140	295	5.6	90	20260	20801	2.2	90	394	1014
15000-16000	1.5	90	197	197	2.4	90	140	295	5.2	794	19325	19915	2.0	90	443	1106
16000-17000	1.1	102	164	320	2.1	100	164	320	3.5	3035	18373	18881	1.0	320	492	1476
17000-18000	0.4	164	164	320	1.1	164	164	320	2.4	4593	17553	17881	1.3	164	820	1263
18000-19000	0.1	164	164	164	1.0	164	164	492	3.0	11434	16076	16505	1.0	164	492	853
19000-20000	0.0				0.1	164	164	164	0.9	2625	15582	15748	0.2	820	902	904

1200Z

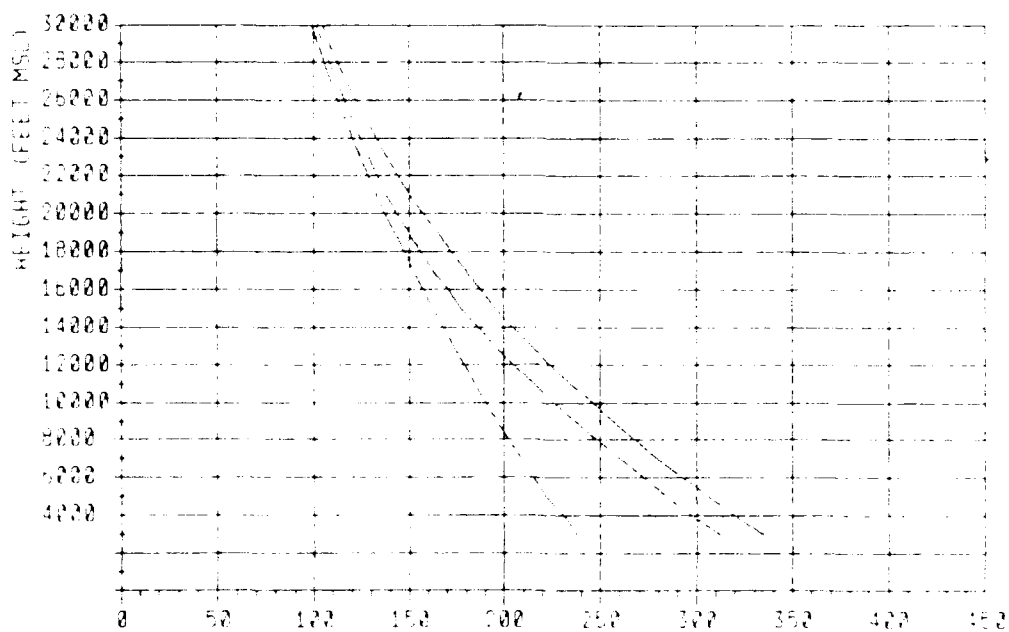
FIGURE B-9-3-D

B-150

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

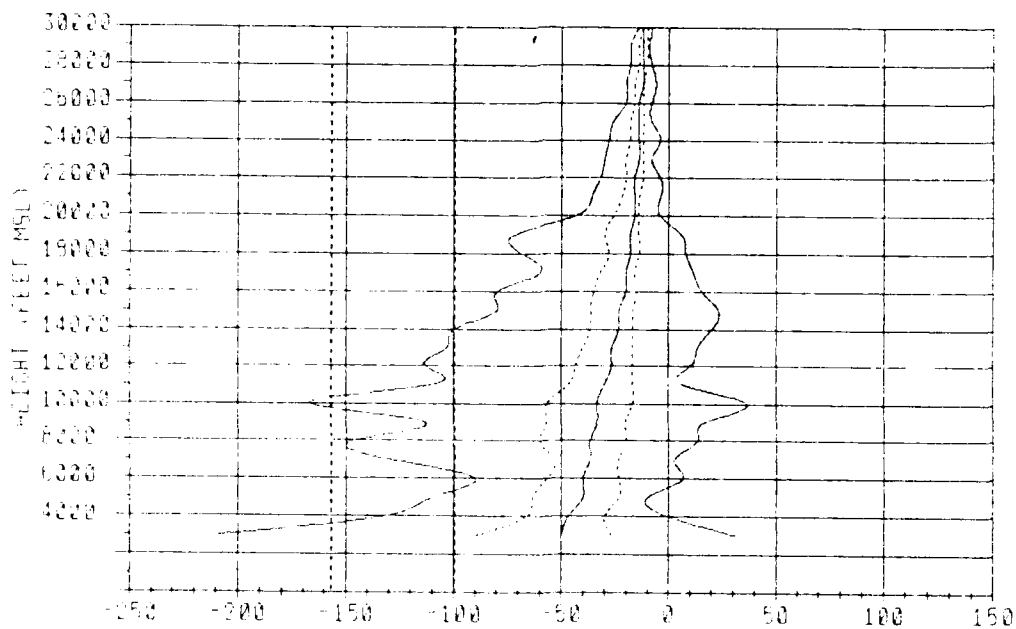
FIGURE B-9-4-A

B-151

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-9-4-B

B-152

NO DATA AVAILABLE

0000Z

NOT FT MSL	1%	M PERCENTILES				1%	DNMH PERCENTILES				PERCENT DUCT	PERCENT OCCURRENCE SLR	PERCENT OCCURRENCE SUB
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%			
SPC-3000	250.41	286.41	321.00	321.74	341.27	-218.39	-137.30	-56.25	-14.58	98.56	6.7	9.8	7.3
3000-3500	229.38	299.22	315.56	328.00	335.65	-246.17	-116.66	-58.00	-23.70	39.84	10.1	18.1	8.9
3500-4000	235.12	289.19	307.50	320.87	327.88	-139.73	-72.91	-45.83	-27.88	14.58	1.2	3.3	2.1
4000-4500	231.44	288.27	300.50	314.86	320.86	-132.58	-66.66	-45.83	-27.88	0.00	0.9	2.6	1.4
4500-5000	228.38	272.86	292.69	308.00	313.88	-120.53	-65.26	-43.75	-27.88	-2.88	1.4	3.0	1.8
5000-6000	222.21	258.38	283.50	297.27	305.86	-106.25	-60.41	-39.58	-22.91	-6.25	0.2	3.2	1.1
6000-7000	215.27	244.20	271.50	283.69	291.10	-116.66	-36.25	-39.58	-22.91	10.42	1.8	2.7	2.1
7000-8000	209.86	230.14	259.56	271.56	278.75	-139.72	-36.25	-37.50	-22.91	3.29	3.8	5.3	3.2
8000-9000	202.89	217.50	246.70	259.50	267.38	-143.37	-60.41	-36.59	-20.85	14.58	3.0	6.9	3.7
9000-10000	195.56	205.70	234.40	247.20	255.24	-113.28	-33.38	-33.33	-19.92	27.99	2.3	3.2	5.0
10000-11000	189.30	196.70	213.60	236.10	244.40	-151.85	-53.38	-30.87	-13.41	20.85	4.6	6.4	5.7
11000-12000	183.27	189.70	212.50	225.80	232.41	-116.66	-46.61	-29.95	-16.66	13.28	1.6	3.4	3.9
12000-13000	177.80	182.60	202.30	215.60	221.65	-100.33	-43.23	-26.69	-16.66	16.66	1.6	3.7	4.8
13000-14000	172.28	175.80	192.70	206.00	212.50	-106.64	-39.97	-26.56	-16.66	13.87	2.1	3.2	5.5
14000-15000	168.60	169.50	183.20	197.10	202.35	-96.74	-36.71	-23.30	-16.66	16.66	1.4	3.2	5.3
15000-16000	161.20	163.80	175.00	188.70	193.50	-74.96	-32.33	-23.30	-16.66	26.69	0.2	2.3	6.2
16000-17000	155.95	158.20	167.70	181.00	185.80	-73.98	-34.96	-21.95	-15.94	10.81	0.5	1.6	3.9
17000-18000	150.80	152.70	160.00	172.70	177.40	-66.81	-30.80	-20.00	-14.86	6.82	0.5	0.9	2.8
18000-19000	145.10	147.00	153.10	164.90	169.97	-71.95	-28.84	-18.84	-13.98	11.35	0.7	2.1	4.1
19000-20000	140.30	142.00	146.70	157.00	161.62	-54.53	-28.84	-17.96	-13.98	-1.95	0.0	0.5	1.6
20000-21000	135.80	137.20	141.30	150.30	154.50	-40.00	-23.98	-16.81	-13.98	-3.98	0.0	0.5	0.9
21000-22000	131.40	132.80	136.25	144.85	148.22	-35.95	-22.83	-16.81	-13.98	-3.98	0.0	0.0	0.9
22000-23000	127.20	128.35	131.60	138.85	142.20	-32.83	-20.80	-14.86	-12.83	-4.84	0.0	0.0	0.9
23000-24000	122.50	123.90	126.80	132.20	136.89	-28.84	-18.84	-13.98	-11.95	-6.82	0.0	0.0	1.2
24000-25000	118.50	119.70	122.20	126.64	130.86	-27.96	-17.96	-13.98	-11.95	-4.81	0.0	0.0	2.1
25000-26000	114.70	115.80	118.10	121.70	124.80	-22.81	-16.81	-13.98	-11.95	-7.97	0.0	0.0	0.0
26000-27000	110.90	112.10	114.20	117.10	119.80	-20.80	-16.81	-12.83	-11.95	-7.97	0.0	0.0	0.0
27000-28000	106.80	108.00	110.20	112.70	115.00	-18.84	-14.86	-12.83	-10.80	-6.82	0.0	0.0	0.5
28000-29000	102.40	104.40	106.20	108.30	110.80	-18.83	-13.98	-12.83	-10.80	-8.86	0.0	0.0	0.0
29000-30000	100.82	101.80	102.70	104.50	106.80	-16.81	-13.98	-11.95	-10.80	-8.85	0.0	0.0	0.0
30000-31000	96.80	97.70	99.30	101.00	102.20	-14.86	-12.83	-10.80	-10.80	-7.97	0.0	0.0	0.0
31000-32000	92.60	94.50	96.00	97.60	98.70	-20.80	-12.83	-10.80	-10.80	-7.97	0.0	0.0	0.0
32000-33000	90.80	92.50	94.10	95.10	95.10	-12.83	-12.83	-10.80	-10.80	-7.97	0.0	0.0	0.0
33000-34000	87.80	87.80	89.10	90.50	91.20	-20.80	-11.95	-10.80	-10.80	-7.97	0.0	0.0	0.0
34000-35000	84.97	85.60	86.50	87.50	88.83	-24.80	-12.83	-10.80	-8.85	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-9-4-C

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT NSL	XPRQ	DUCTS THK PERCENTILES			XPRQ	SRLRS THK PERCENTILES			XPRQ	NORMAL THK PERCENTILES			XPRQ	SUB THK PERCENTILES		
		10x	50x	90x		10x	50x	90x		10x	50x	90x		10x	50x	90x
2270-3000	6.7	22	228	228	9.8	98	262	426	79.2	1786	12730	32252	7.3	213	328	722
3000-3500	6.1	167	266	275	12.0	90	266	394	38.3	2913	14370	32189	3.5	98	266	945
3500-4000	1.2	197	492	689	1.6	98	197	1883	3.5	846	14600	31628	0.5	98	394	689
4000-4500	0.2	689	689	689	1.6	98	394	787	1.6	98	2885	31136	0.5	492	541	591
4500-5000	1.1	197	295	295	3.4	98	492	886	7.1	630	14173	38447	0.9	98	246	1673
5000-6000	0.0				0.7	394	591	591	3.0	3543	29463	29975	0.9	394	1280	1575
6000-7000	1.0	98	295	492	2.3	98	492	768	2.7	689	28233	28715	0.9	394	787	1280
7000-8000	2.5	98	394	591	4.3	98	295	689	3.4	98	1870	27947	2.5	98	787	2362
8000-9000	1.0	98	394	492	4.4	188	394	876	7.3	98	16681	26953	2.1	98	787	1535
9000-10000	1.6	98	197	394	2.3	98	443	768	4.1	591	8330	25919	3.2	98	591	1033
10000-11000	4.4	98	197	394	6.0	98	295	492	14.0	98	6726	24935	3.9	98	394	1378
11000-12000	1.4	98	295	394	3.2	157	295	512	4.6	98	4724	23822	3.0	98	689	1624
12000-13000	1.4	98	246	295	3.4	98	197	512	6.7	295	22179	22966	3.2	98	492	1339
13000-14000	1.0	98	197	295	3.0	98	197	394	5.5	98	28998	21982	3.4	98	689	1516
14000-15000	1.1	98	295	295	3.0	98	148	394	6.4	98	28210	28881	3.0	98	689	1339
15000-16000	0.2	197	197	197	1.4	197	246	295	5.5	986	19620	19817	4.1	98	325	1007
16000-17000	0.2	164	164	164	1.4	131	164	492	4.6	2477	18619	18921	2.1	164	636	1640
17000-18000	0.5	164	164	164	0.9	164	164	328	2.5	164	1230	17783	1.6	492	984	1804
18000-19000	0.7	164	164	164	2.1	164	164	328	5.1	4737	16876	16733	2.8	164	574	1214
19000-20000	0.0				0.5	164	246	328	1.6	164	19420	18740	0.9	164	492	984

1200Z

FIGURE B-9-4-D

B-154

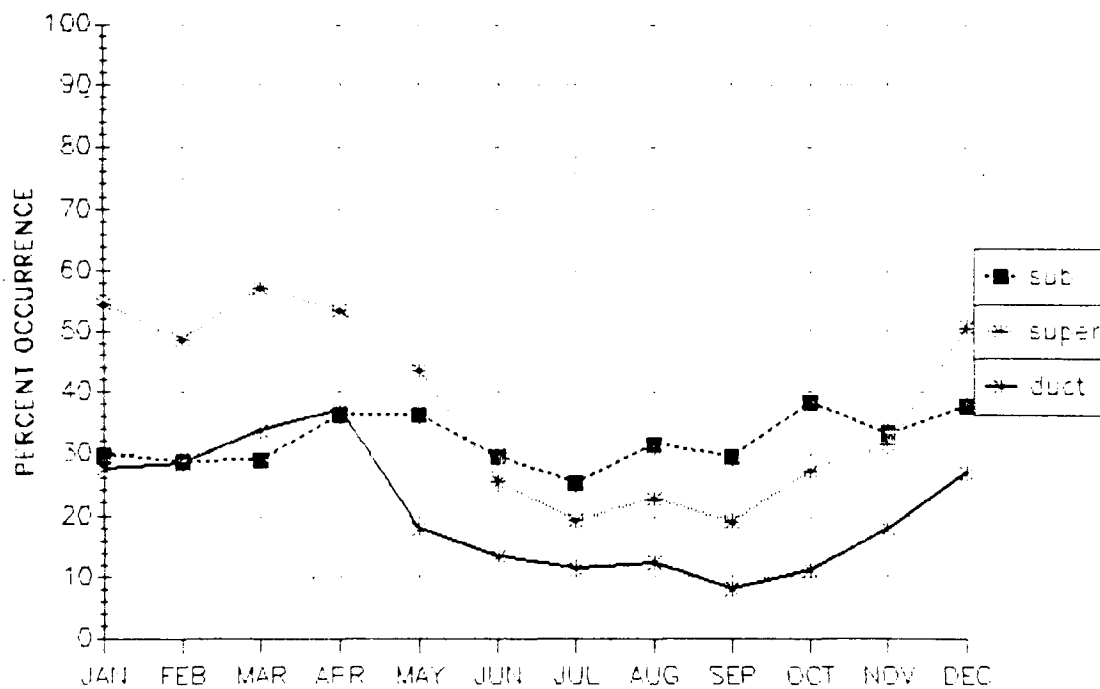
SAN JOSE

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY

NO DATA AVAILABLE

0000Z

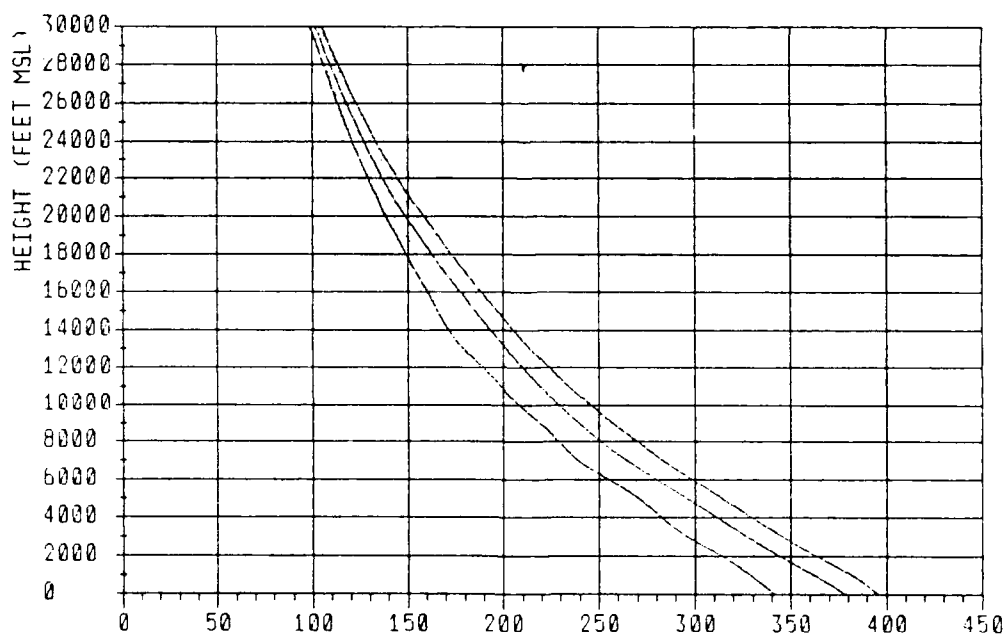
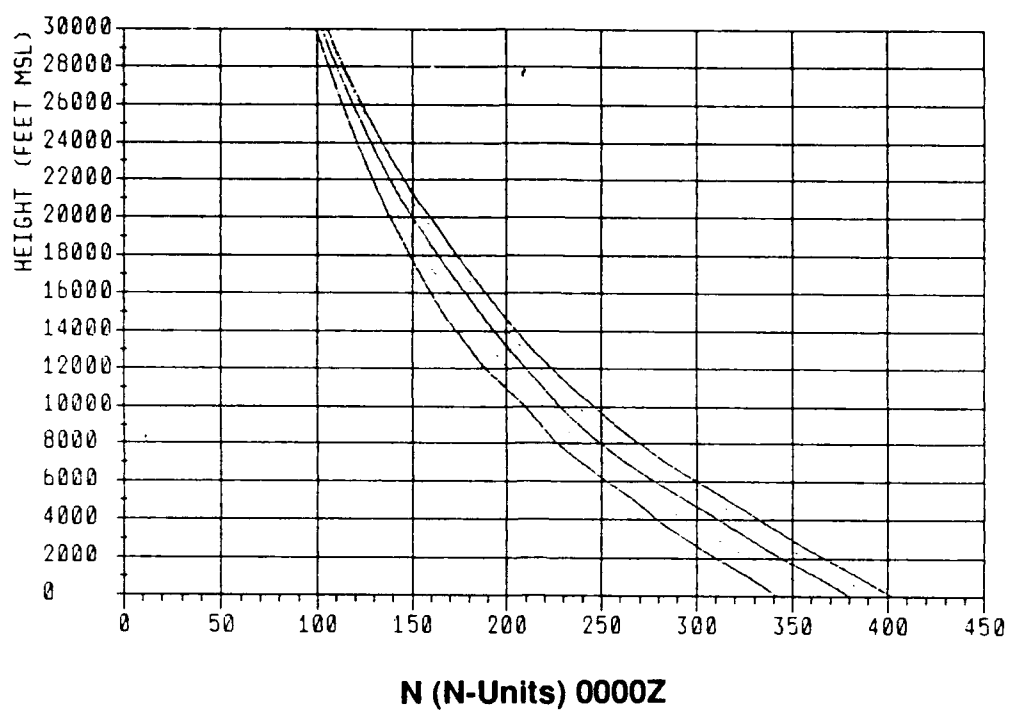


1200Z

FIGURE B-9-5

B-155

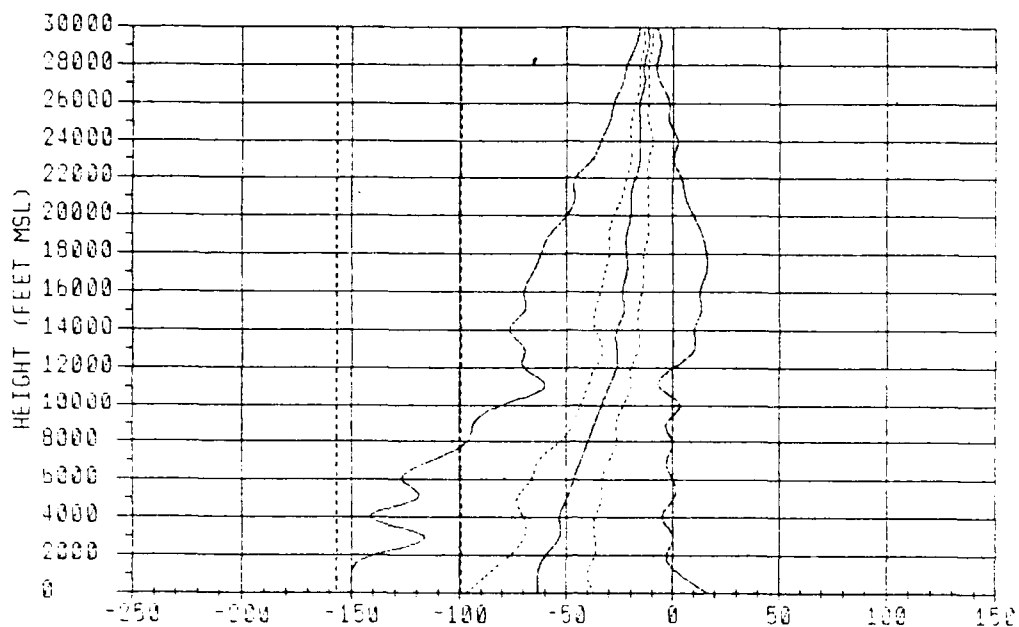
N PERCENTILES



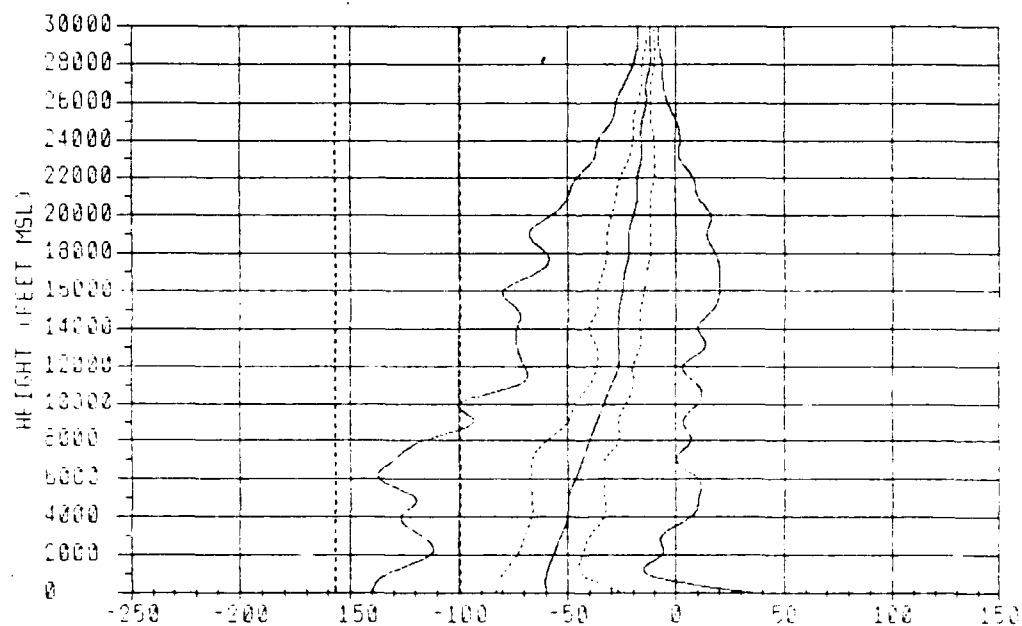
N (N-Units) 1200Z

FIGURE B-10-1-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-10-1-B

B-157

THICKNESS STATISTICS

BASE FT. MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	11.5	79	79	295	18.8	79	98	1063	92.8	970	16221	35054	17.1	79	79	374
500-1000	0.7	197	394	492	2.7	98	98	945	7.6	98	11664	74581	1.1	98	295	610
1000-1500	0.8	295	443	591	2.7	98	541	1729	4.9	98	9941	74589	0.9	98	492	1280
1500-2000	1.6	108	295	581	2.7	98	394	846	3.6	1771	15978	33306	0.8	98	744	679
2000-2500	0.9	158	394	1004	2.4	98	295	876	3.8	98	7677	33105	0.6	591	925	1181
2500-3000	0.4	98	197	591	1.7	98	295	965	3.4	896	16536	32617	0.8	128	686	1611
3000-3500	0.6	98	246	591	1.1	98	295	689	2.1	98	10335	32042	0.5	98	195	591
3500-4000	1.1	98	246	640	2.2	98	295	886	2.7	217	10335	31530	0.6	74	146	2016
4000-4500	0.9	98	295	669	2.2	98	492	689	2.3	98	7641	31136	0.9	98	394	689
4500-5000	1.0	98	295	463	4.7	98	295	787	5.6	197	11762	30349	2.1	98	195	610
5000-6000	1.5	98	295	591	2.4	98	492	689	6.7	98	12763	29955	2.0	98	794	984
6000-7000	1.8	98	246	394	4.1	98	295	659	6.2	217	17078	28774	1.3	98	443	915
7000-8000	1.5	98	295	394	3.0	98	295	492	4.6	158	10696	27888	1.8	98	794	984
8000-9000	0.7	98	98	394	1.8	98	197	640	4.3	98	12336	26904	1.7	98	295	1209
9000-10000	0.6	197	295	295	2.7	98	295	481	3.1	98	4036	25721	2.3	98	195	659
10000-11000	0.7	98	197	591	1.4	98	197	394	5.0	98	5364	24775	2.7	98	295	738
11000-12000	0.5	98	148	197	0.9	98	197	394	2.2	413	6496	24049	1.7	157	591	1209
12000-13000	0.3	98	246	295	0.9	98	197	433	3.0	98	4544	22651	2.1	98	591	1719
13000-14000	0.3	98	148	197	1.2	98	98	394	4.4	98	2559	21510	7.9	98	794	797
14000-15000	0.5	98	146	295	1.5	98	197	285	4.6	197	4134	20604	3.3	98	794	718
15000-16000	1.1	98	98	256	1.4	98	98	295	4.9	98	1542	19521	4.1	98	726	751
16000-17000	0.1	98	98	98	1.2	151	164	381	6.1	623	8350	18832	5.7	164	728	920
17000-18000	0.2	164	164	164	1.0	164	164	328	5.5	361	5413	17881	4.5	164	728	869
18000-19000	0.4	164	164	164	0.5	164	164	164	7.8	492	8530	16569	7.4	164	728	820
19000-20000	0.1	164	164	164	0.5	164	164	164	4.0	820	14928	15748	3.8	164	728	656

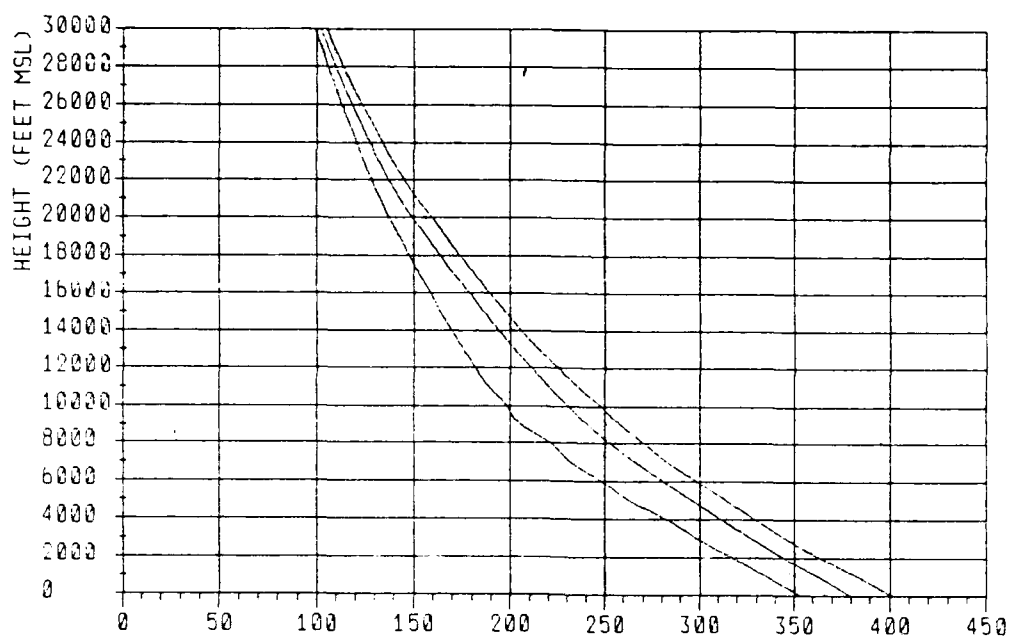
0000Z

BASE FT. MSL	%FRQ	DUCTS THK. PERCENTILES			%FRQ	SRLS THK. PERCENTILES			%FRQ	NORMAL THK. PERCENTILES			%FRQ	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	4.6	79	79	591	14.1	79	79	736	94.1	689	13878	35054	28.5	79	79	394
500-1000	0.5	295	492	787	2.8	98	492	1083	10.0	98	9449	74680	7.2	98	295	610
1000-1500	0.8	98	394	1071	1.9	98	492	935	2.8	335	15387	34188	0.7	295	492	1778
1500-2000	0.6	197	394	591	1.2	98	738	1408	2.6	689	7481	33597	0.3	492	640	787
2000-2500	0.5	98	246	492	1.3	98	394	965	2.2	1181	15191	33115	0.9	98	591	2087
2500-3000	0.8	118	394	591	1.3	98	492	1092	1.8	98	17977	32711	0.8	108	246	945
3000-3500	0.5	98	295	295	1.3	98	344	797	1.8	98	6890	26149	1.1	197	492	877
3500-4000	0.6	98	246	295	1.7	98	394	935	2.5	98	7790	31618	0.9	98	492	1181
4000-4500	0.7	98	295	591	2.6	98	492	738	2.2	98	4429	31048	0.9	394	492	689
4500-5000	1.4	98	295	394	3.8	98	98	591	5.8	886	11647	30749	2.7	295	541	1083
5000-6000	0.9	98	295	591	3.2	98	492	856	5.4	98	10335	29935	2.6	98	295	935
6000-7000	2.3	98	295	295	5.1	98	295	679	8.0	118	10958	28675	2.9	98	394	787
7000-8000	2.0	98	197	394	4.4	98	295	659	6.8	98	8169	27691	1.9	98	794	1142
8000-9000	1.6	98	197	394	4.1	98	197	610	7.6	531	10007	26766	2.6	99	794	718
9000-10000	0.5	98	197	394	2.3	118	295	591	3.4	98	6201	25899	3.1	98	794	817
10000-11000	0.8	98	148	384	1.9	98	197	413	6.5	98	6710	24975	3.7	98	794	886
11000-12000	0.2	98	98	197	0.9	98	197	512	3.6	98	5476	23941	2.5	98	794	738
12000-13000	0.4	98	98	197	1.3	98	197	394	3.3	98	3642	22494	2.6	98	492	886
13000-14000	0.8	98	98	295	1.2	98	197	335	4.8	98	7772	21687	4.4	98	794	886
14000-15000	0.7	98	98	197	1.5	98	197	295	5.7	98	2182	20604	4.8	98	794	689
15000-16000	0.9	98	148	197	1.3	98	98	299	5.9	98	3281	19521	5.4	98	794	804
16000-17000	0.1	98	164	164	1.6	151	164	328	7.0	128	2461	18727	6.5	164	459	820
17000-18000	0.2	164	164	164	0.9	164	164	328	6.4	410	3937	17717	4.7	164	728	771
18000-19000	0.6	164	164	164	0.9	164	164	164	10.6	984	15912	16569	9.0	164	728	920
19000-20000	0.2	164	164	164	0.7	164	164	164	5.9	656	14928	15617	5.7	164	728	820

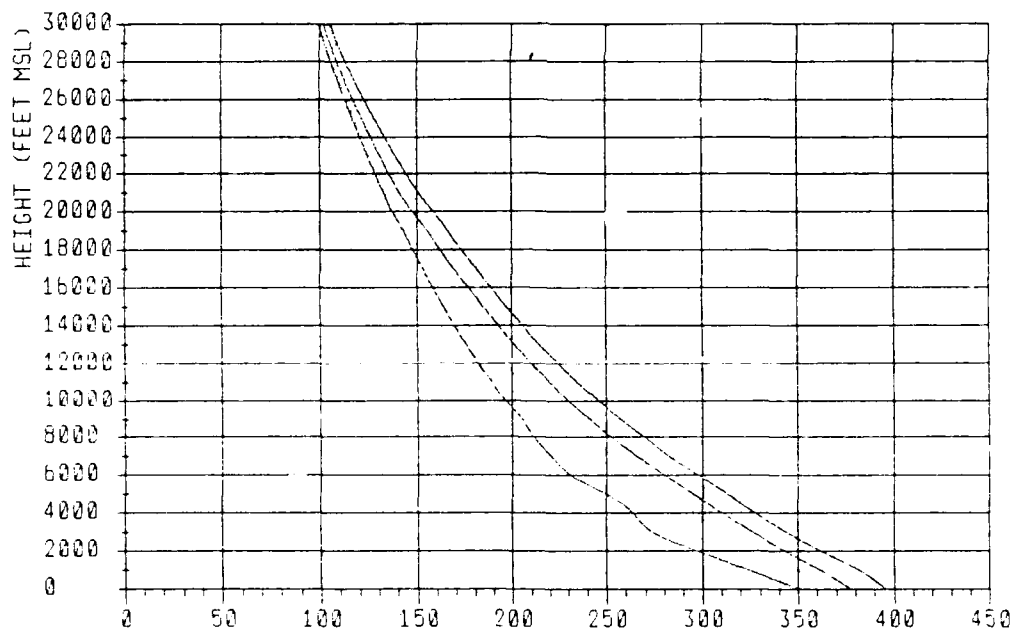
1200Z

FIGURE B-10-1-D

N PERCENTILES



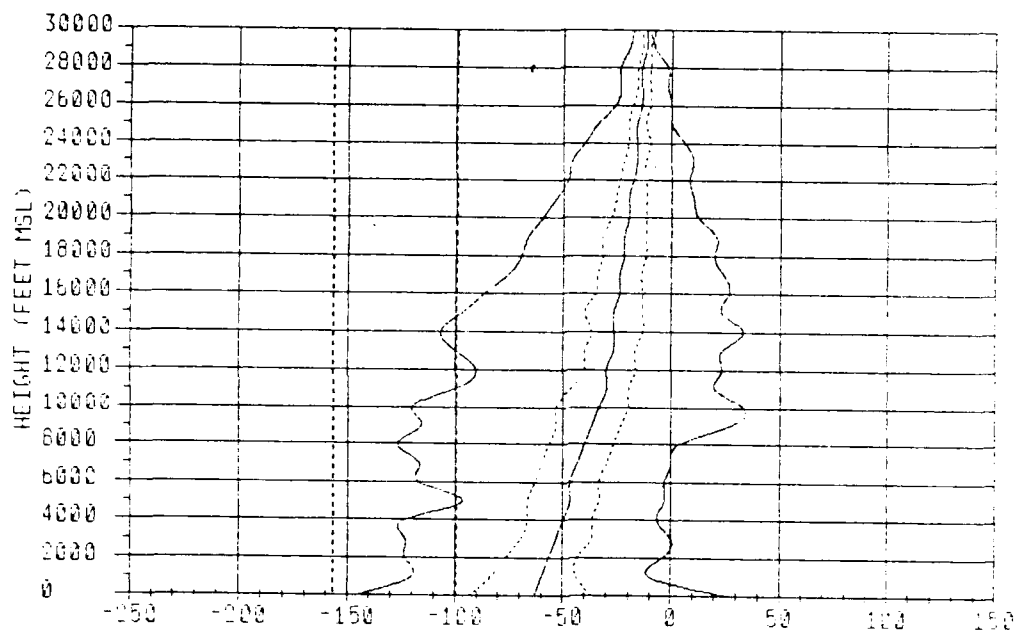
N (N-Units) 0000Z



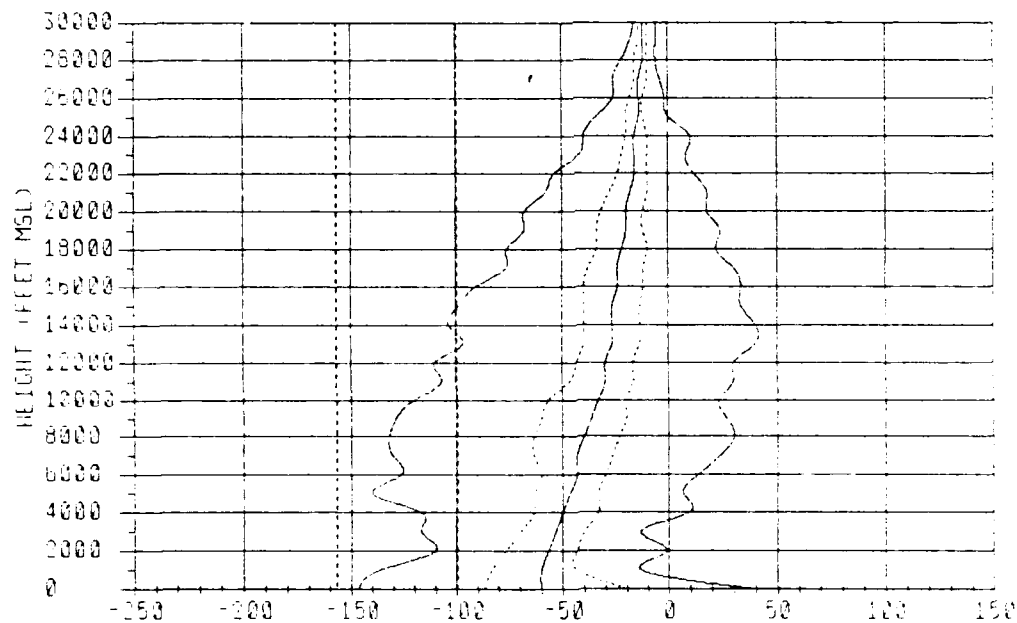
N (N-Units) 1200Z

FIGURE B-10-2-A

GRADIENT PERCENTILES



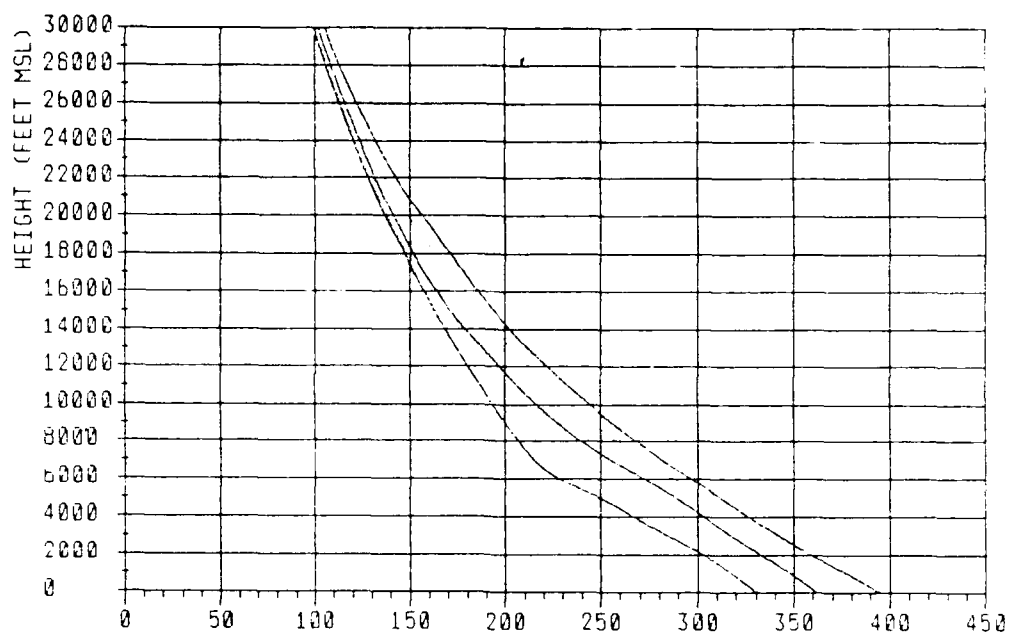
DNDH (N-Units/KM) 0000Z



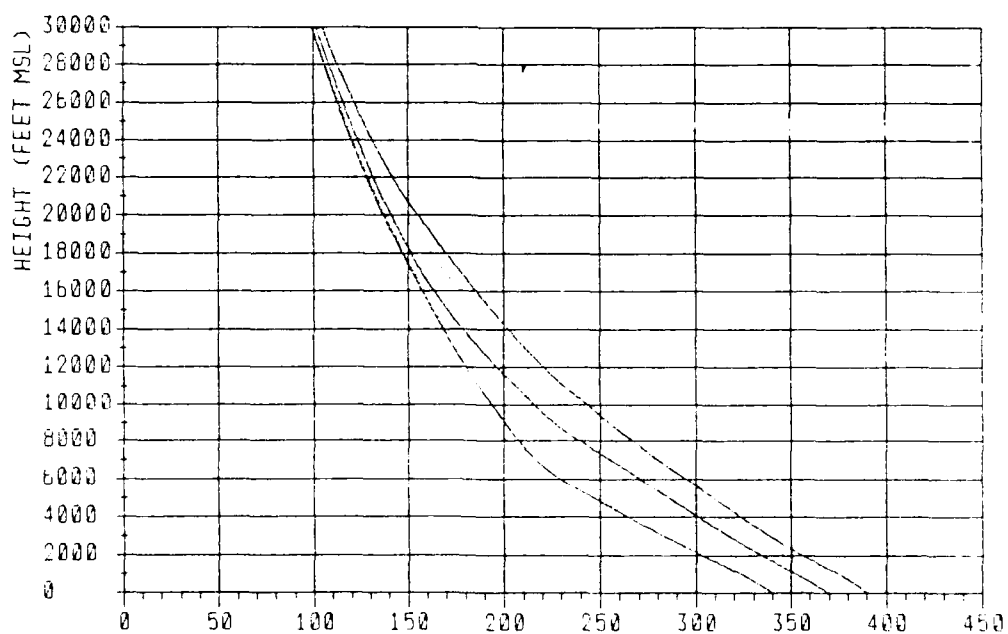
DNDH (N-Units/KM) 1200Z

FIGURE B-10-2-B

N PERCENTILES



N (N-Units) 0000Z

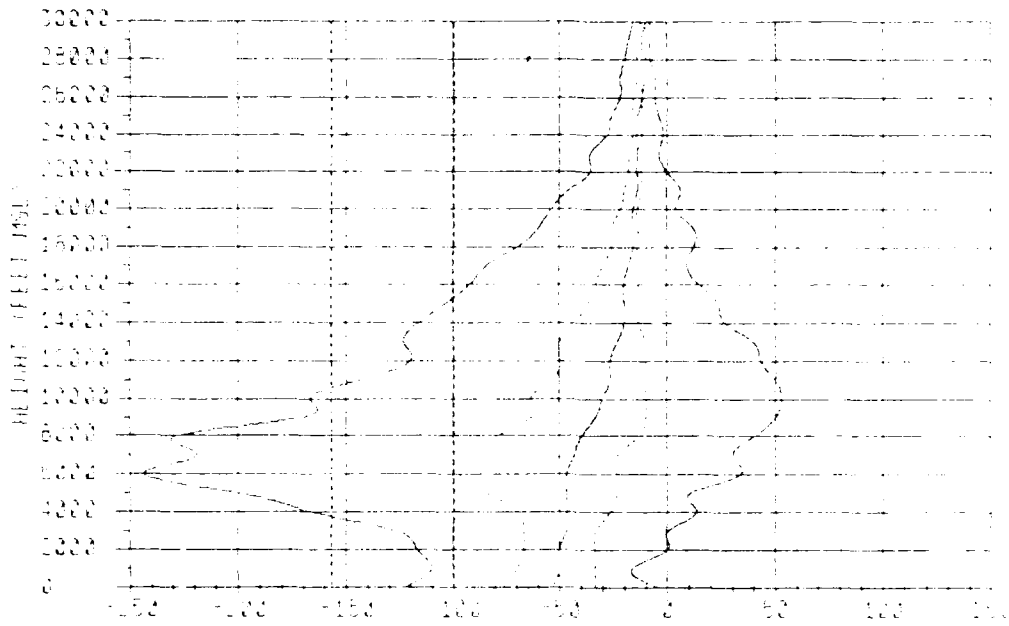


N (N-Units) 1200Z

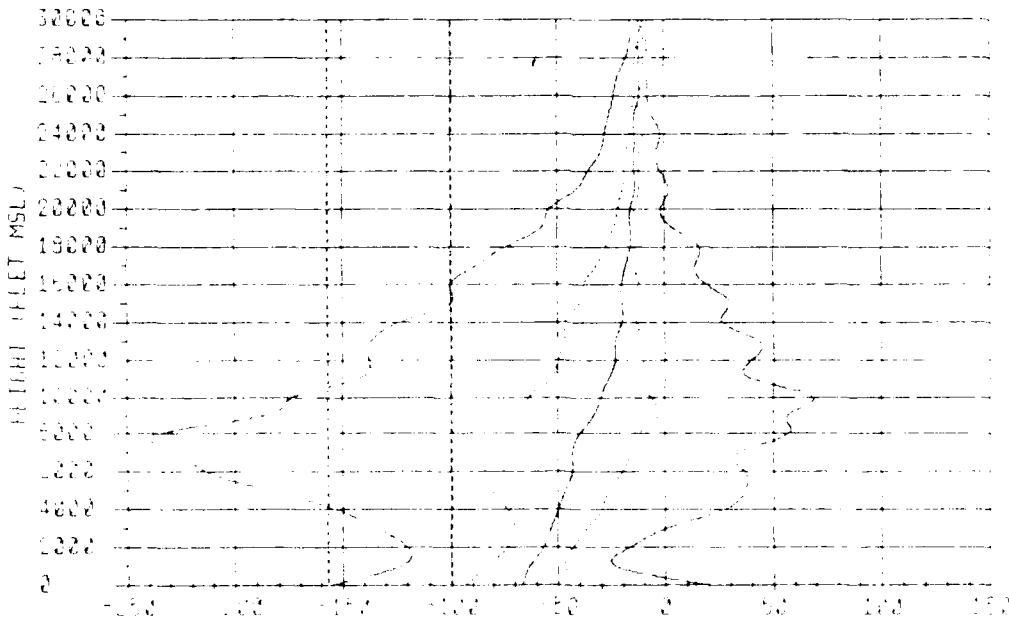
FIGURE B-10-3-A

B-164

GRADIENT PERCENTILES



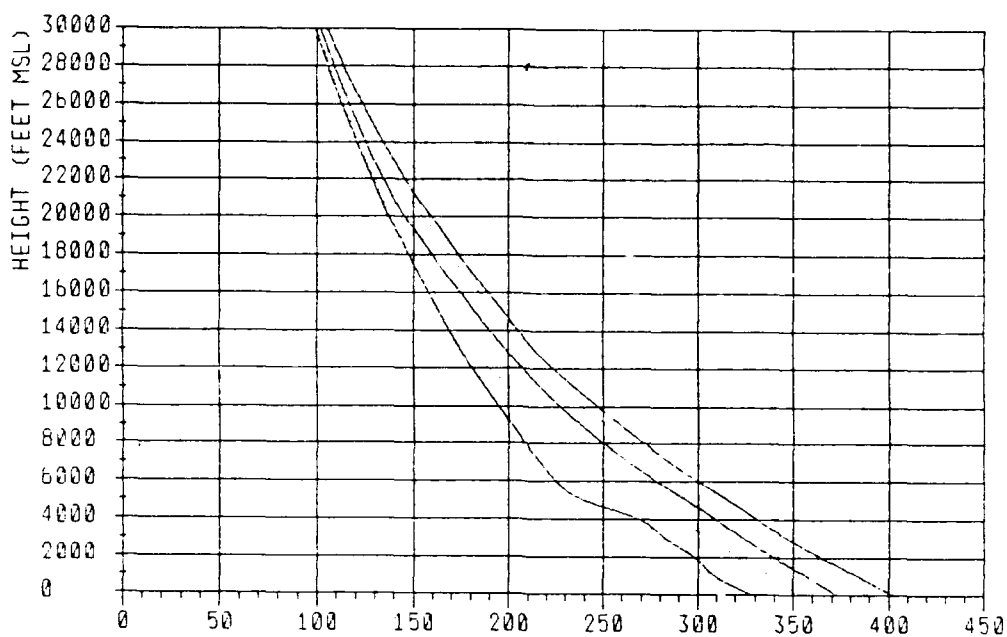
DNDH (N-Units/KM) 0000Z



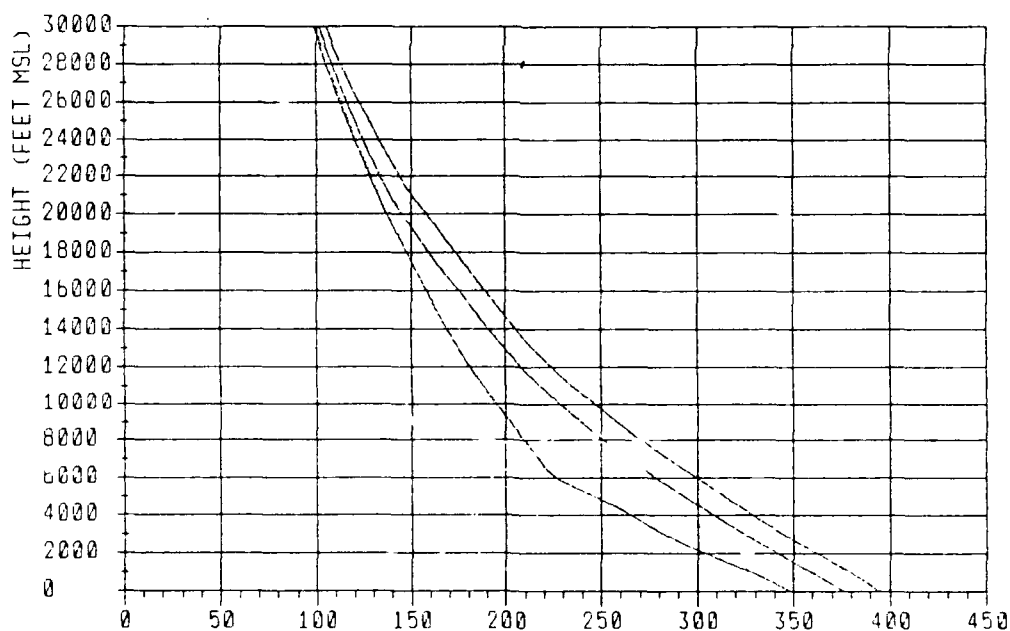
DNDH (N-Units/KM) 1200Z

FIGURE B-10-3-B

N PERCENTILES



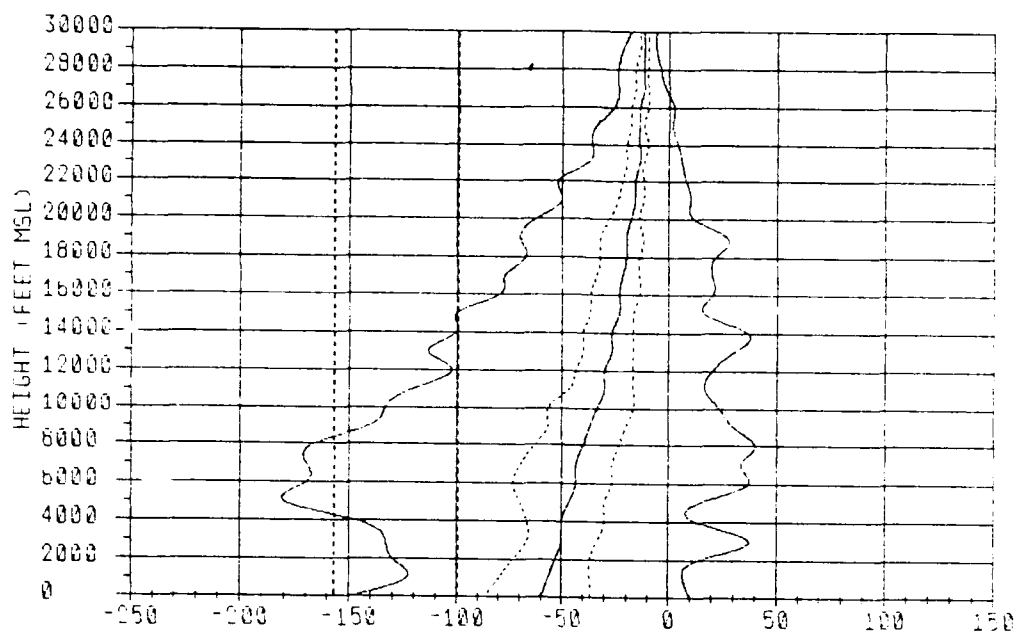
N (N-Units) 0000Z



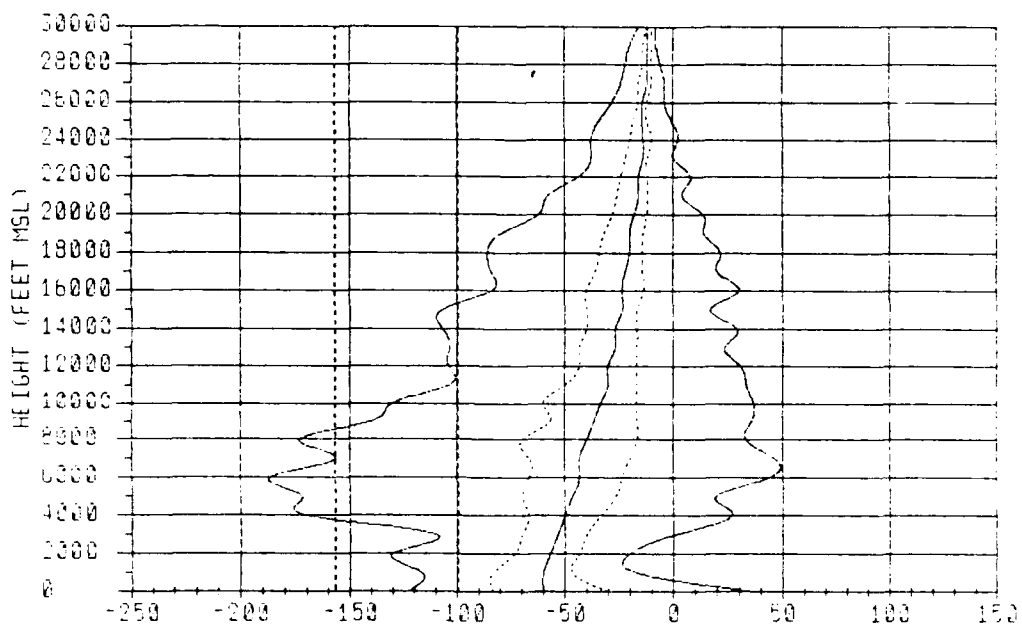
N (N-Units) 1200Z

FIGURE B-10-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

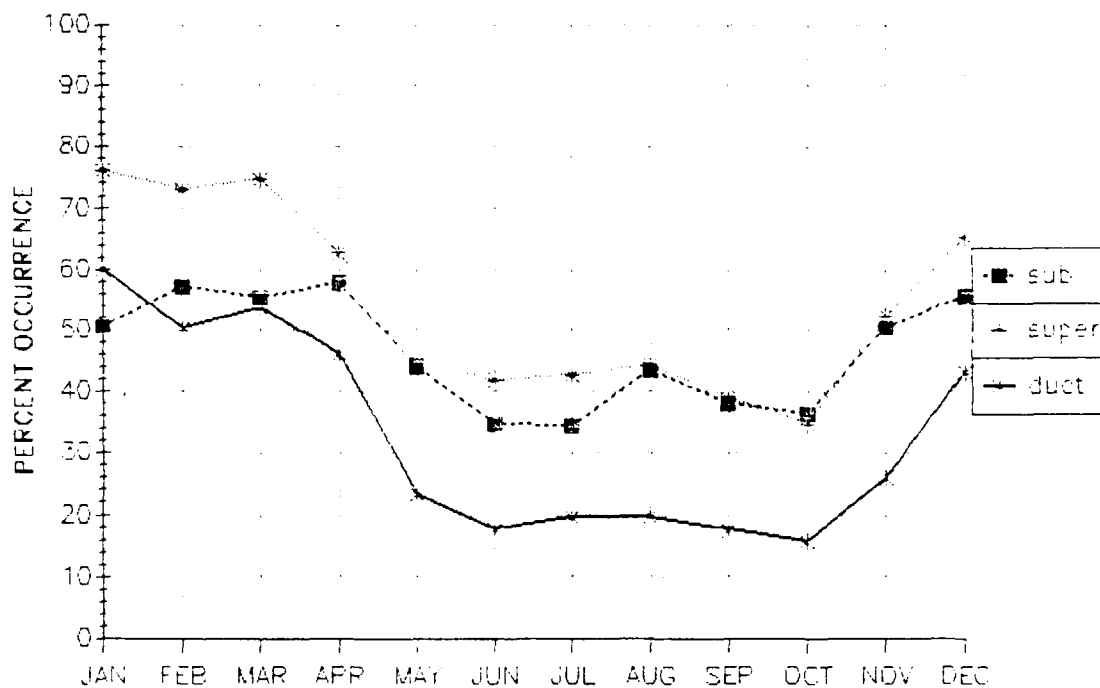


DNDH (N-Units/KM) 1200Z

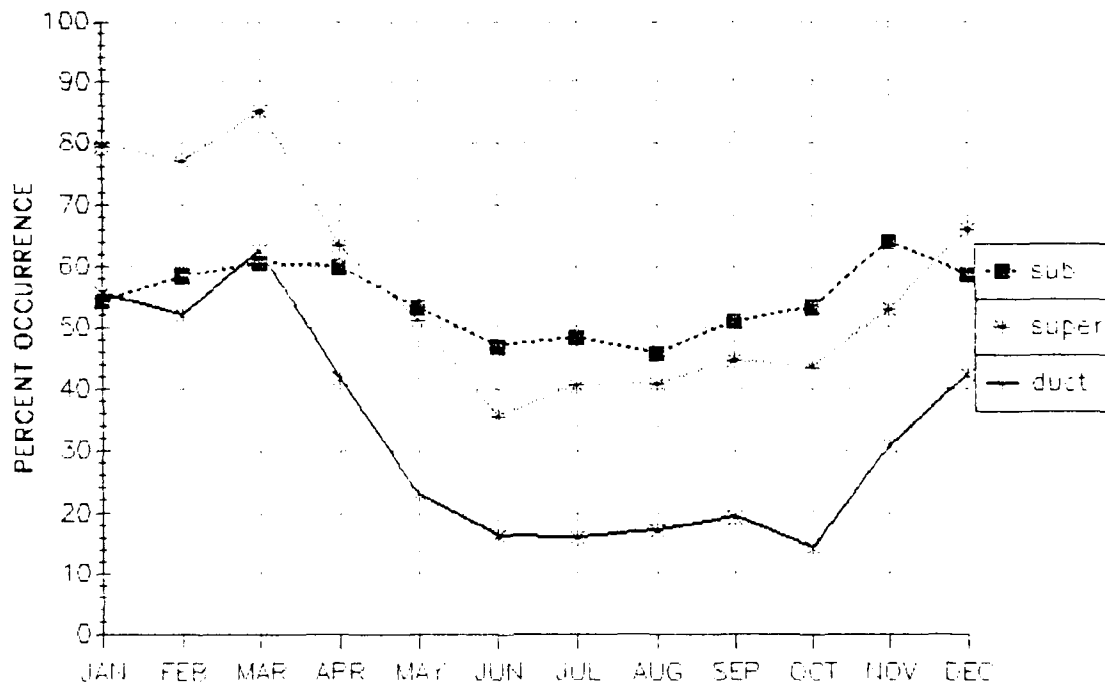
FIGURE B-10-4-B

B-169

AP PERCENT OCCURRENCE FREQUENCY



0000Z

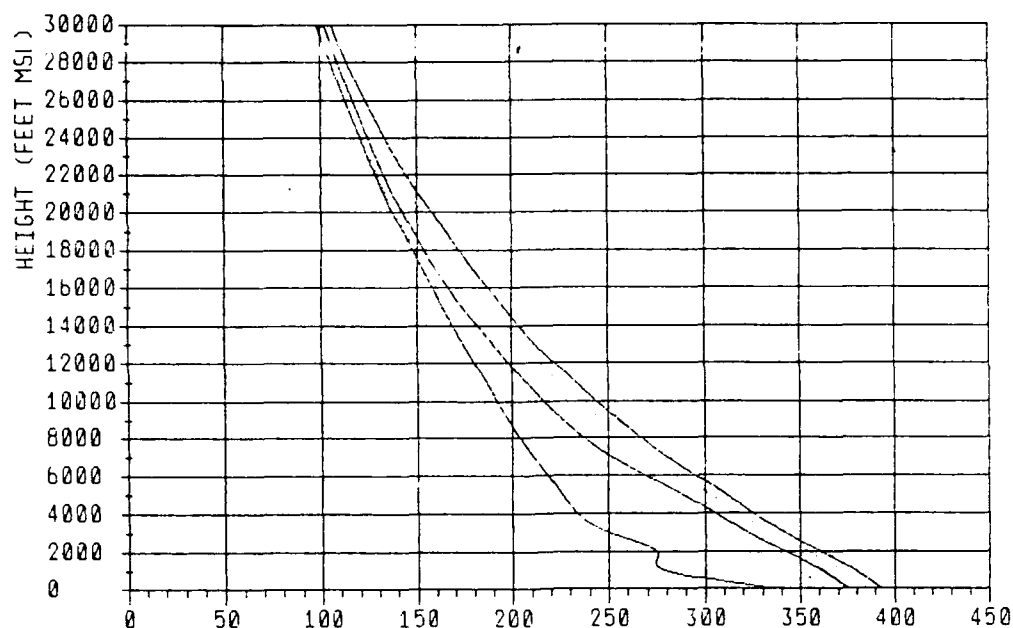


1200Z

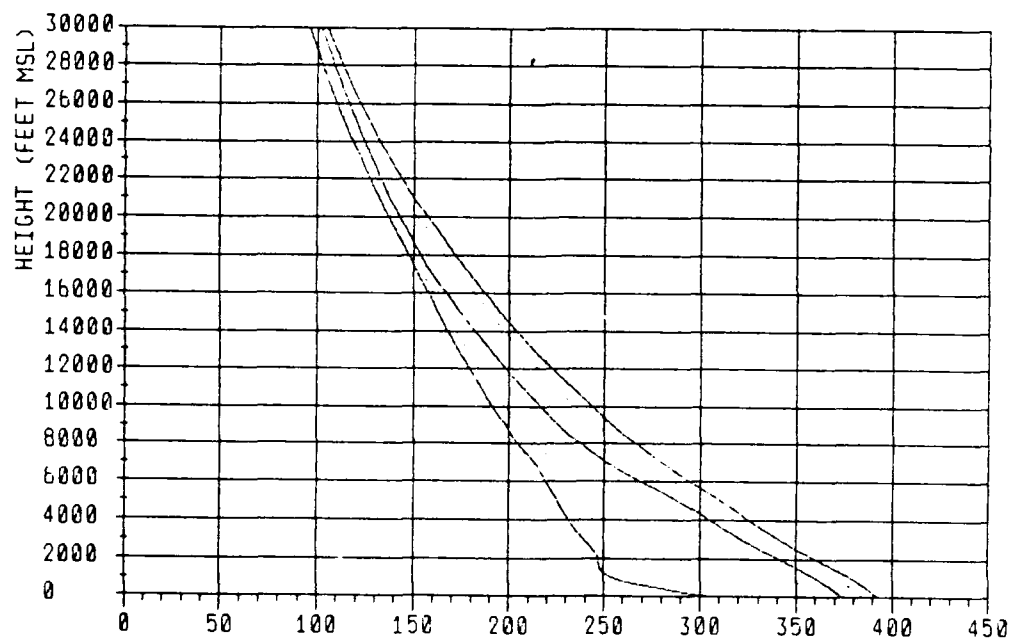
FIGURE B-10-5

B-172

N PERCENTILES



N (N-Units) 0000Z

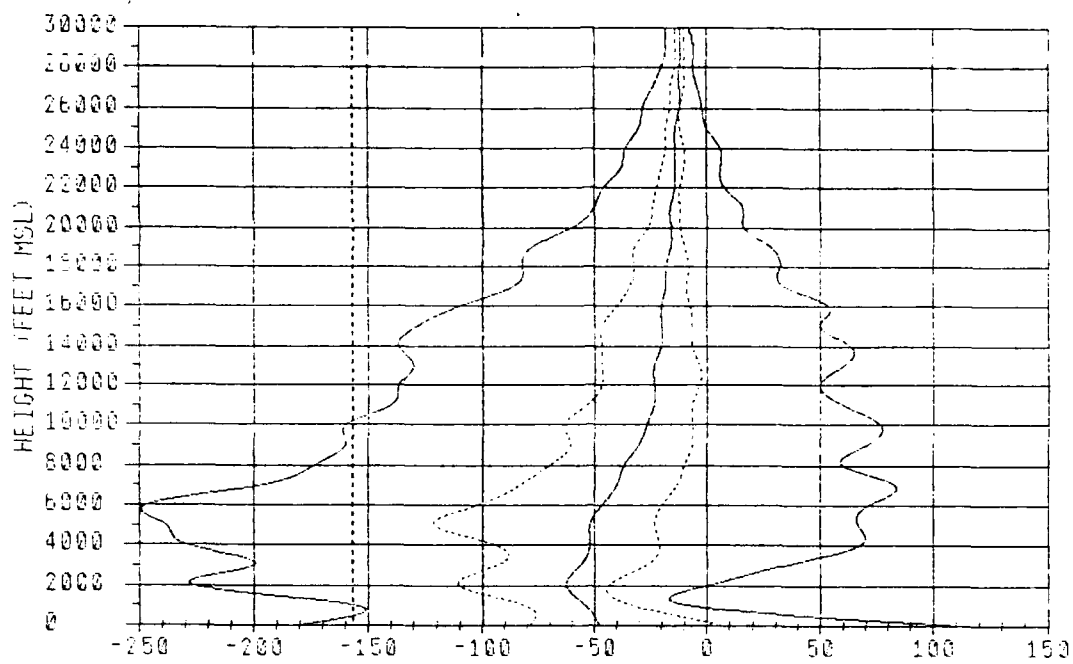


N (N-Units) 1200Z

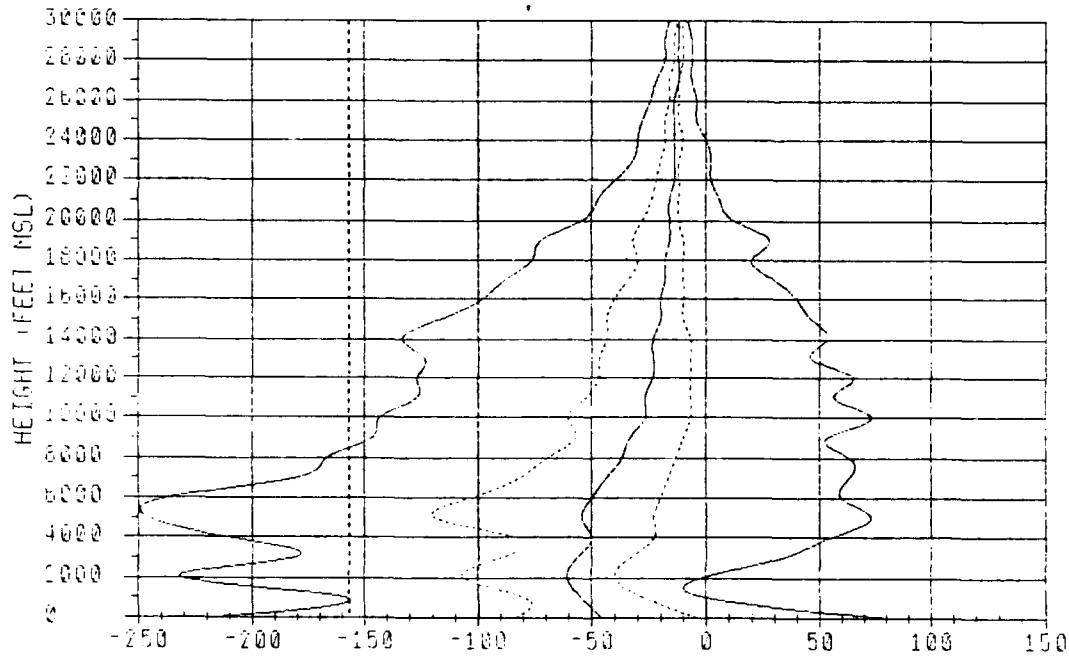
FIGURE B-11-1-A

B-173

GRADIENT PERCENTILES



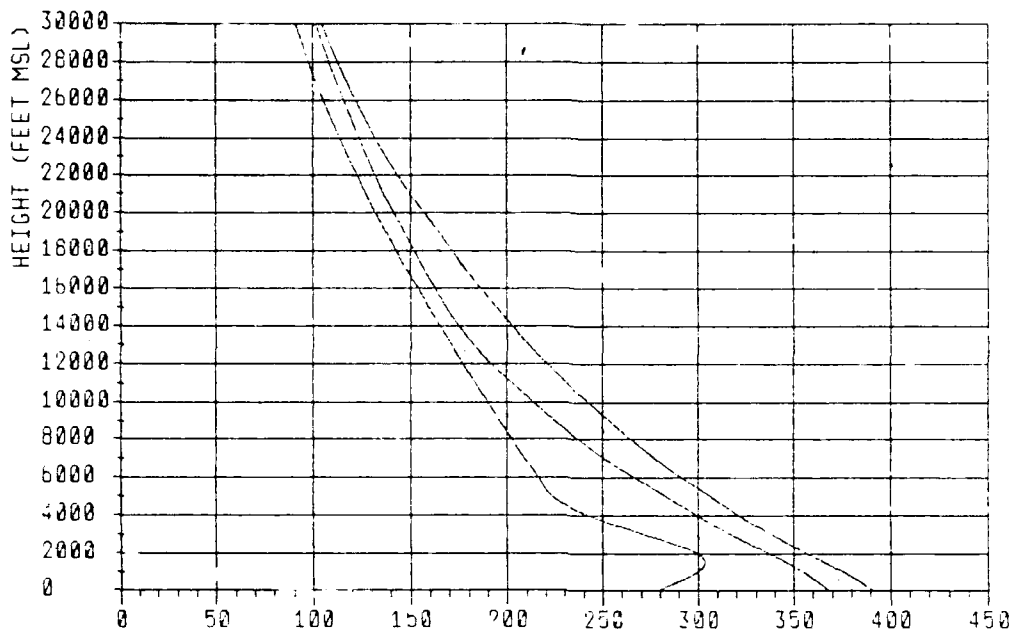
DNDH (N-Units/KM) 0000Z



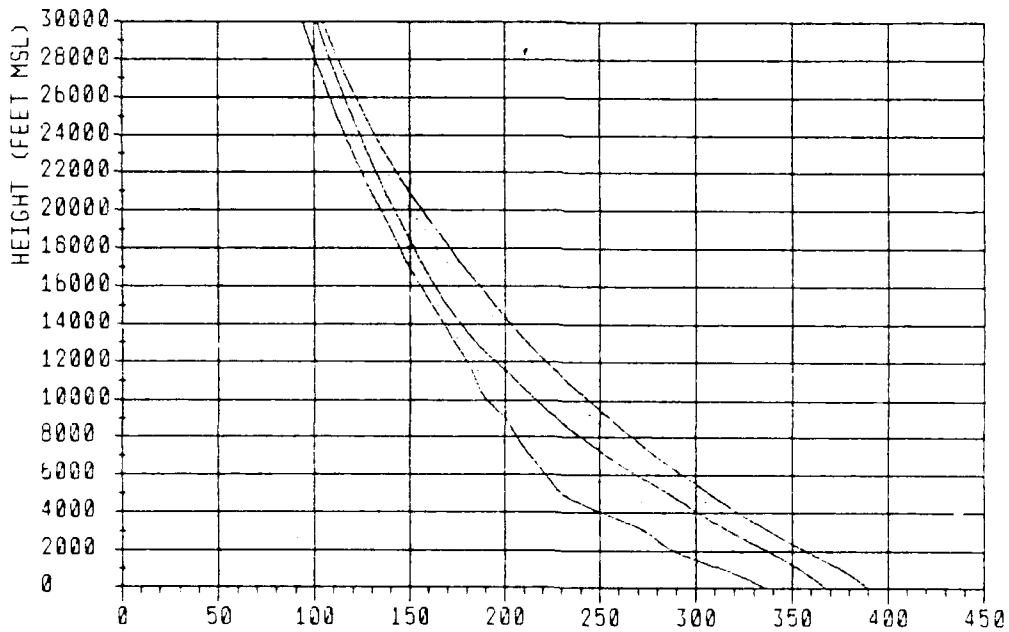
DNDH (N-Units/KM) 1200Z

FIGURE B-11-1-B

N PERCENTILES



N (N-Units) 0000Z

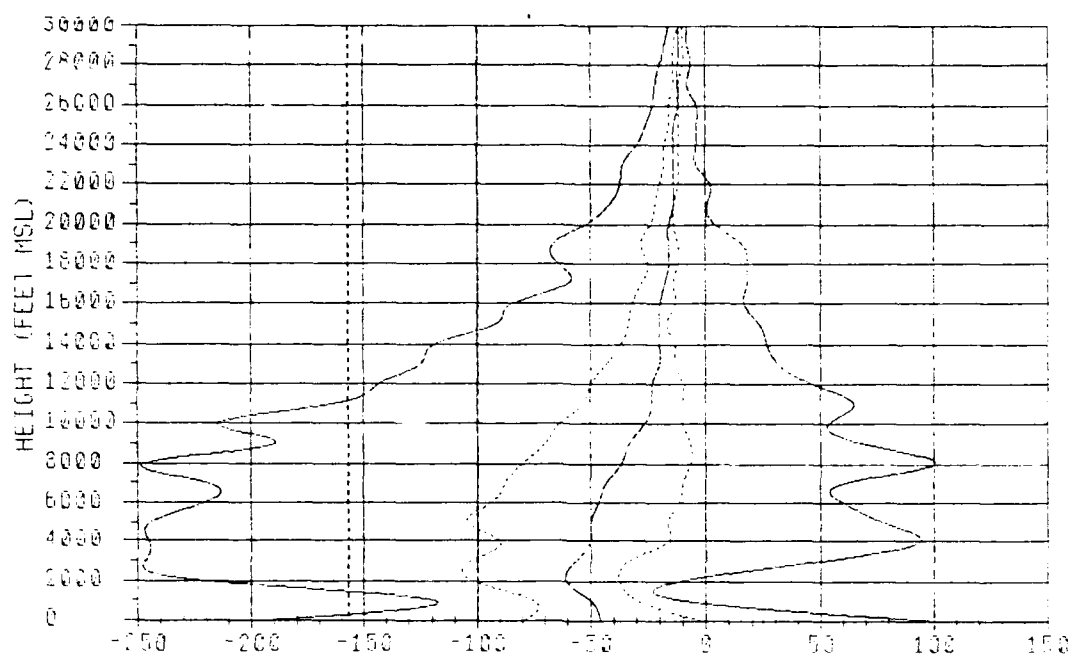


N (N-Units) 1200Z

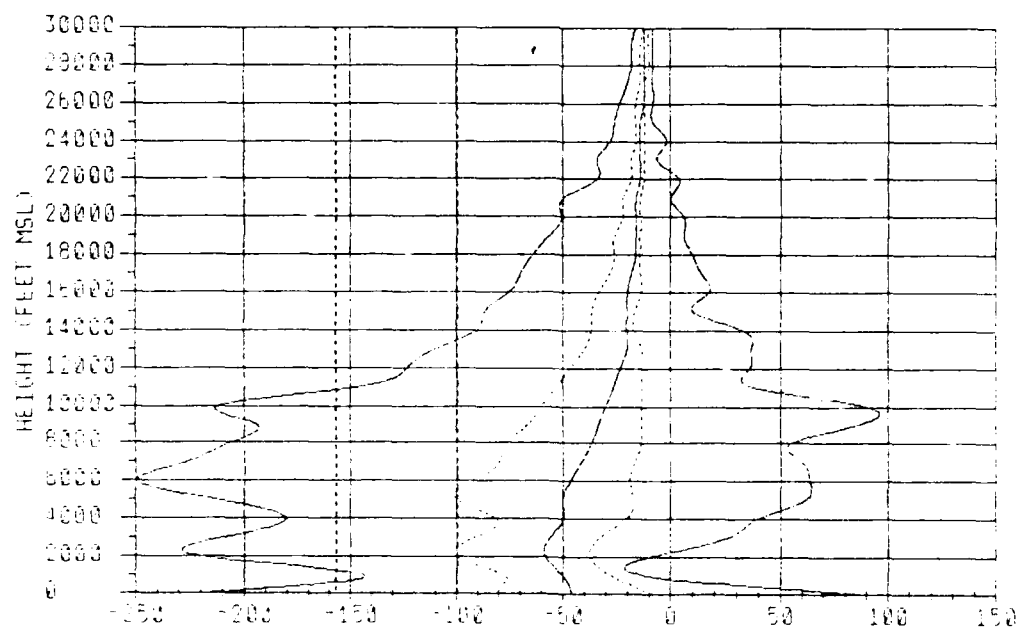
FIGURE B-11-2-A

B-177

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

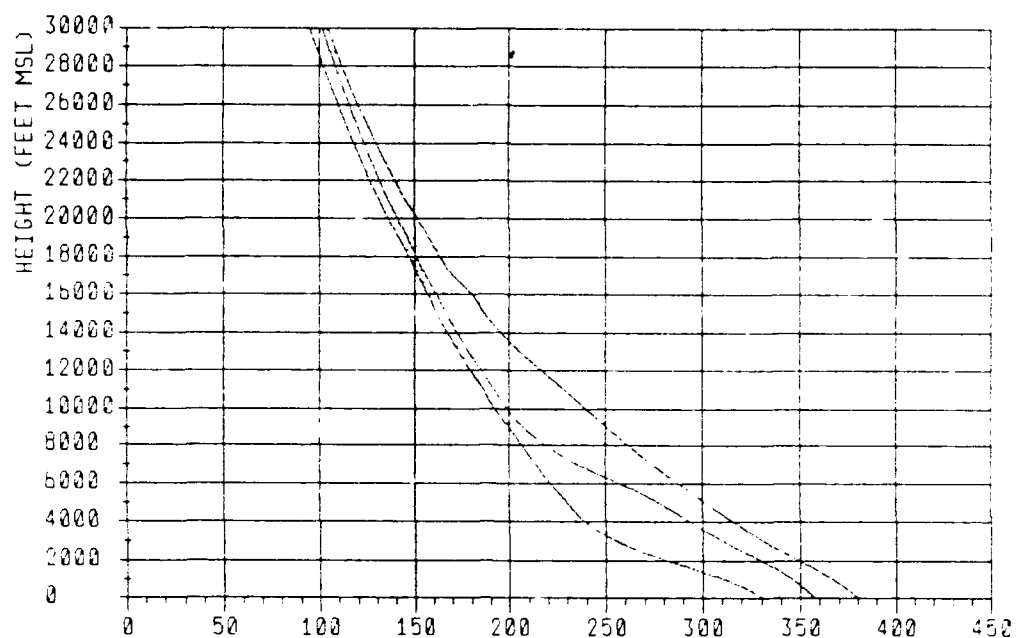


DNDH (N-Units/KM) 1200Z

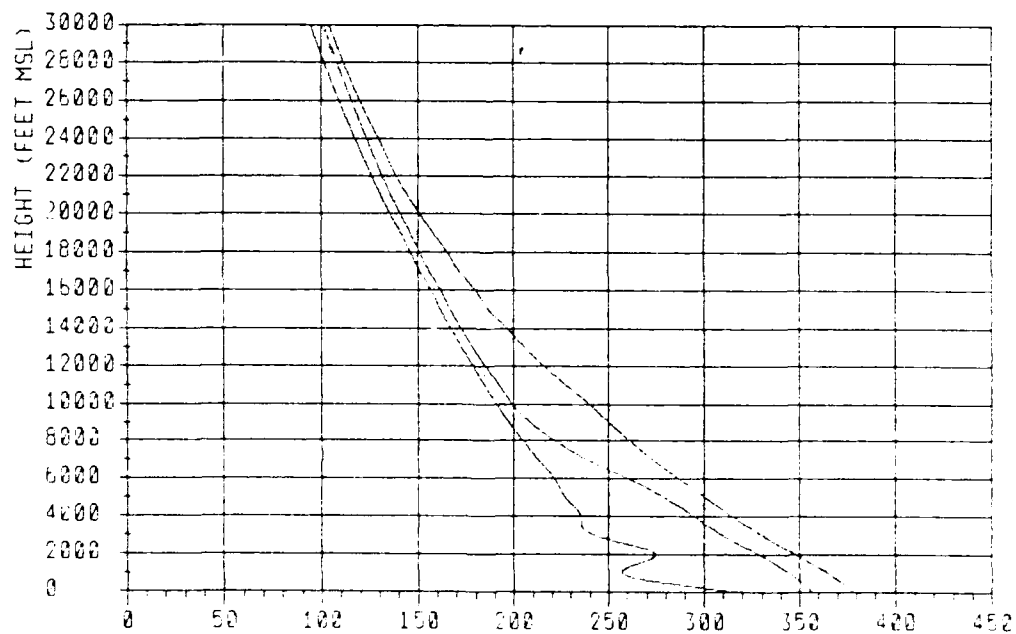
FIGURE B-11-2-B

B-178

N PERCENTILES



N (N-Units) 0000Z

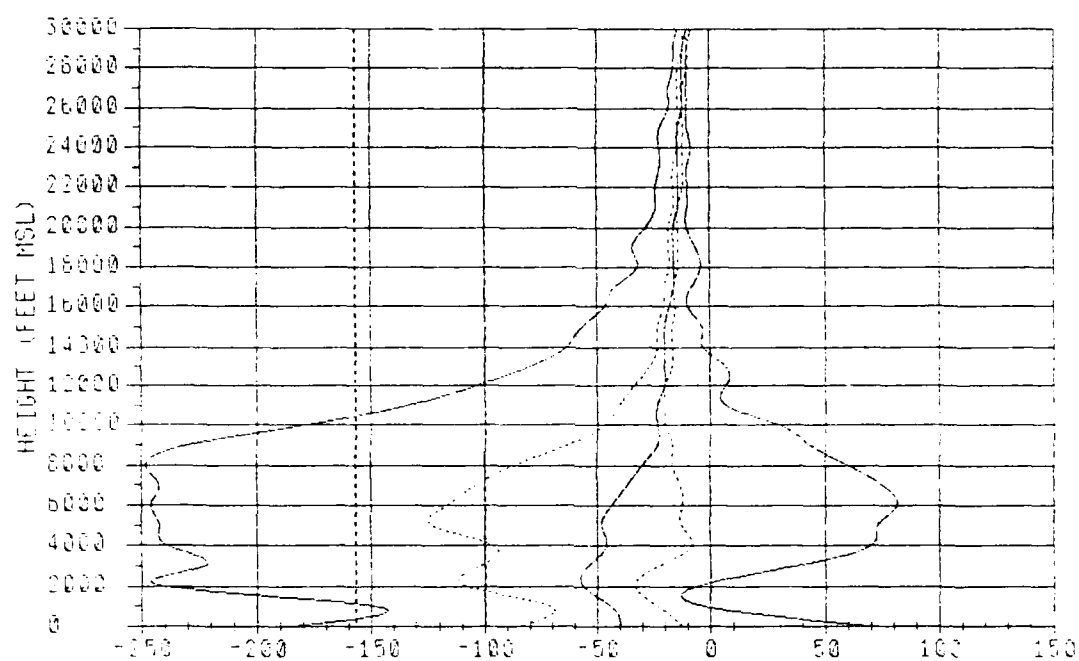


N (N-Units) 1200Z

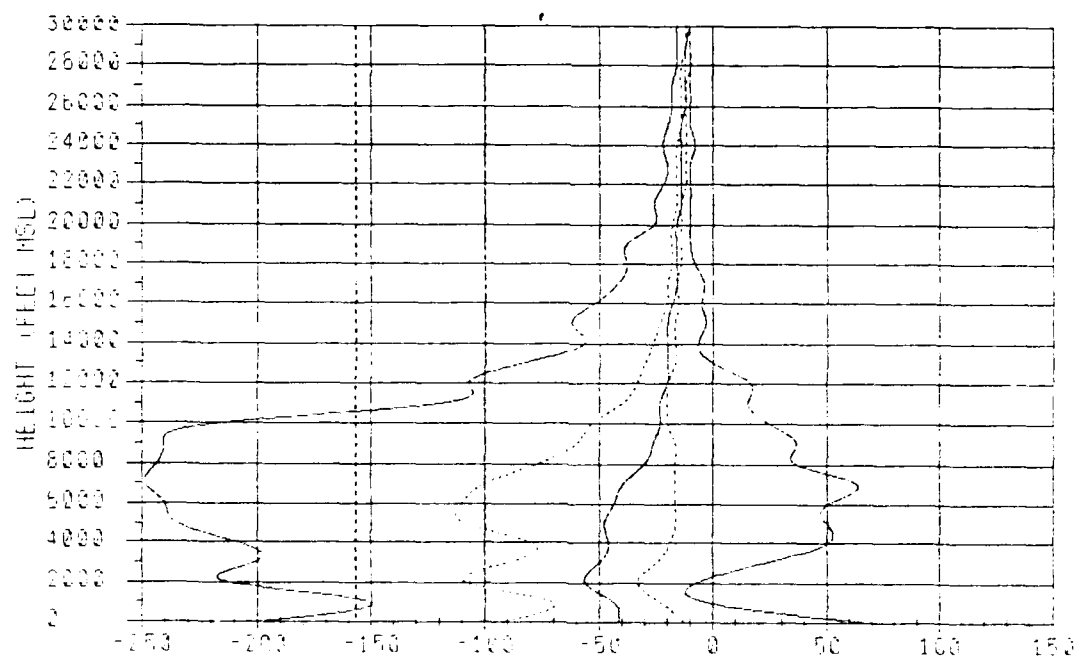
FIGURE B-11-3-A

B-181

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

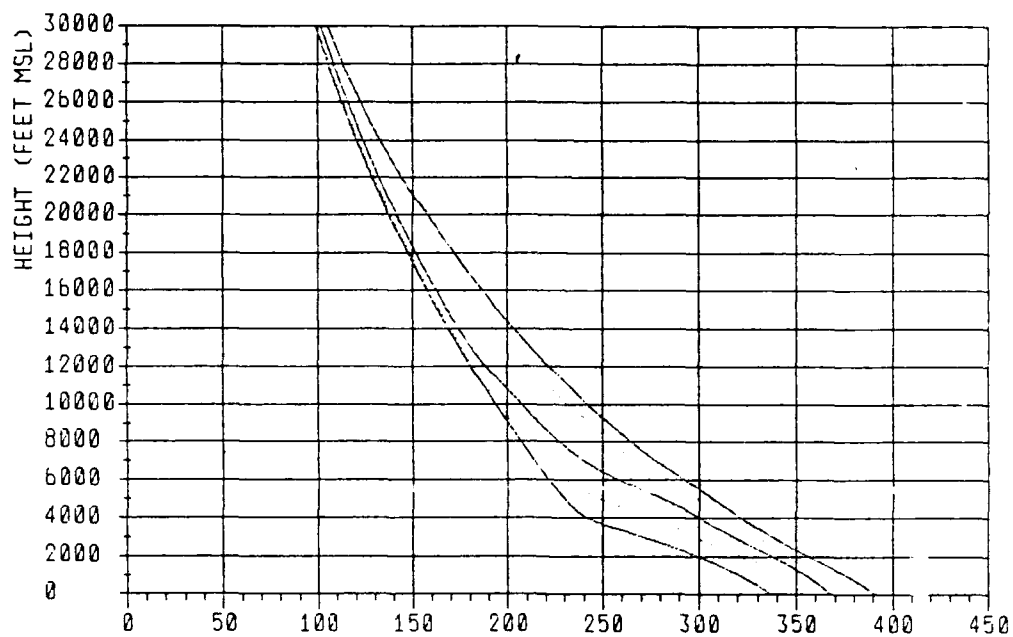


DNDH (N-Units/KM) 1200Z

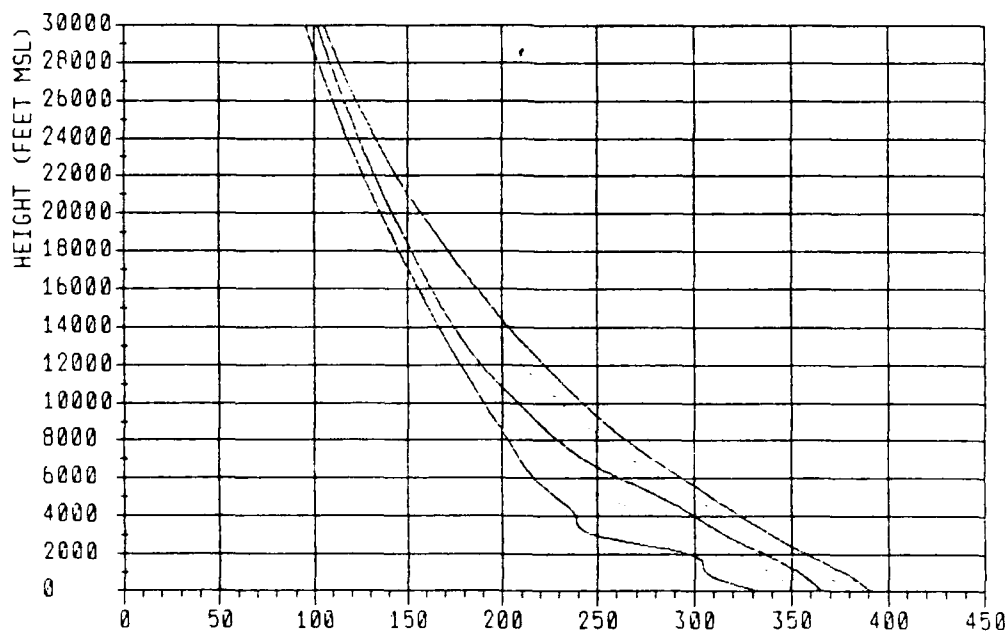
FIGURE B-11-3-B

B-182

N PERCENTILES



N (N-Units) 0000Z

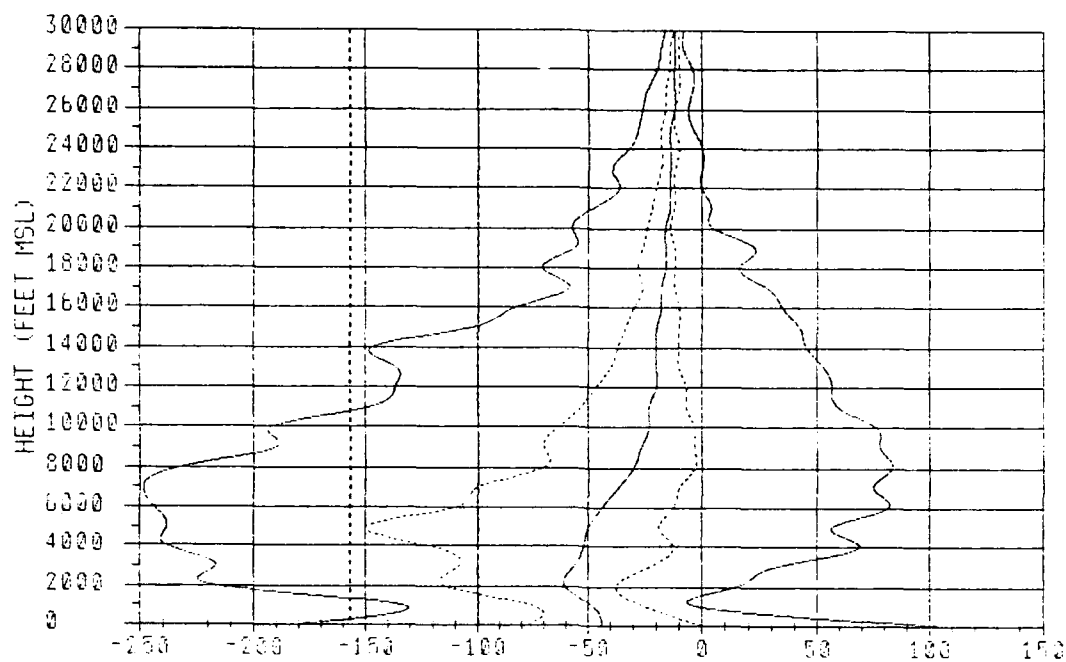


N (N-Units) 1200Z

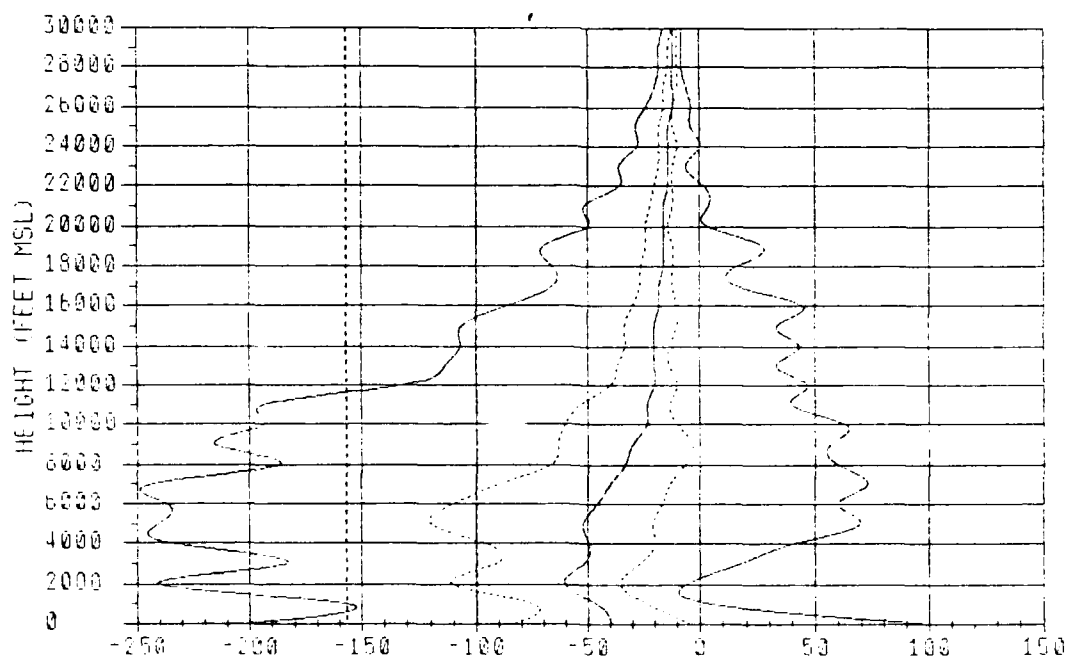
FIGURE B-11-4-A

B-185

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

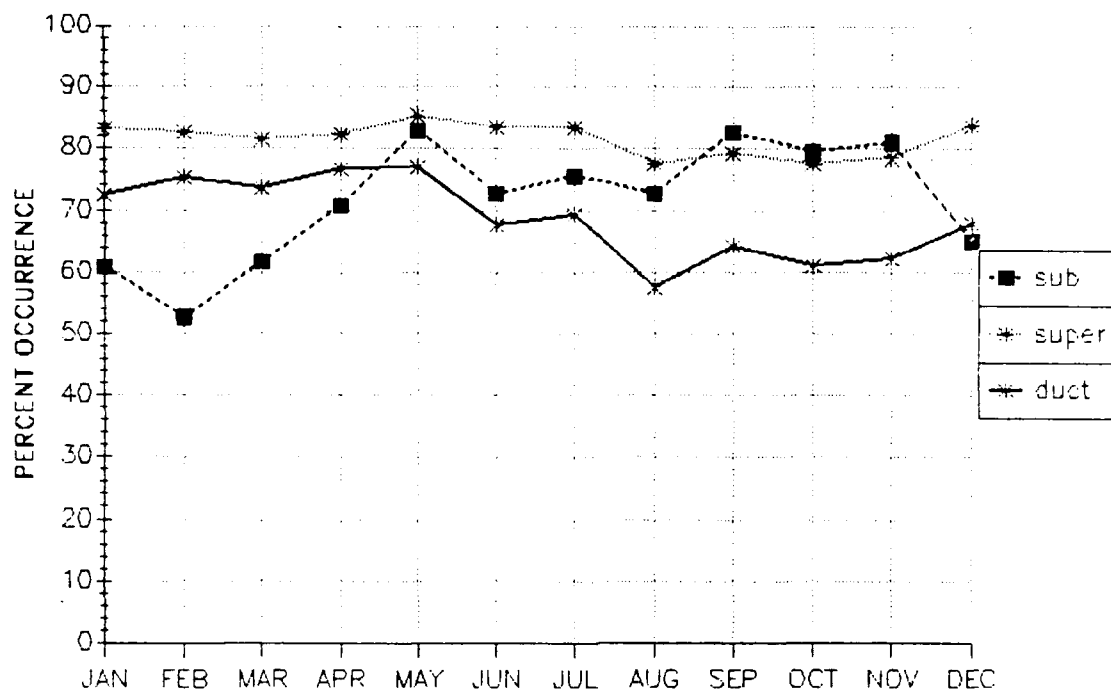


DNDH (N-Units/KM) 1200Z

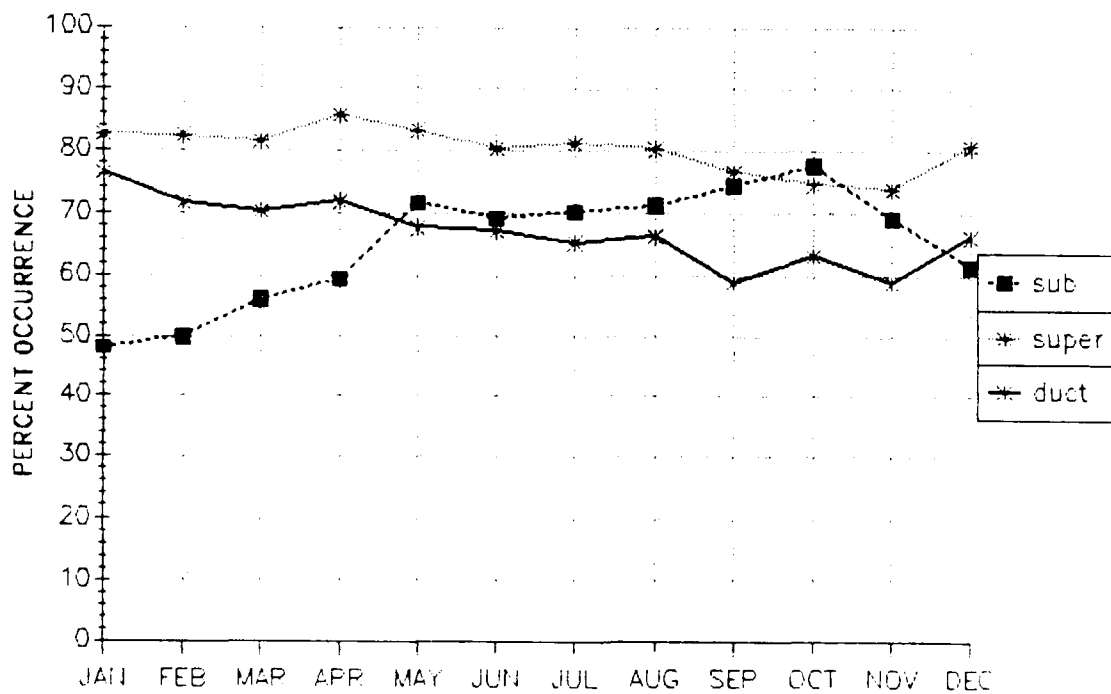
FIGURE B-11-4-B

B-186

AP PERCENT OCCURRENCE FREQUENCY



0000Z



1200Z

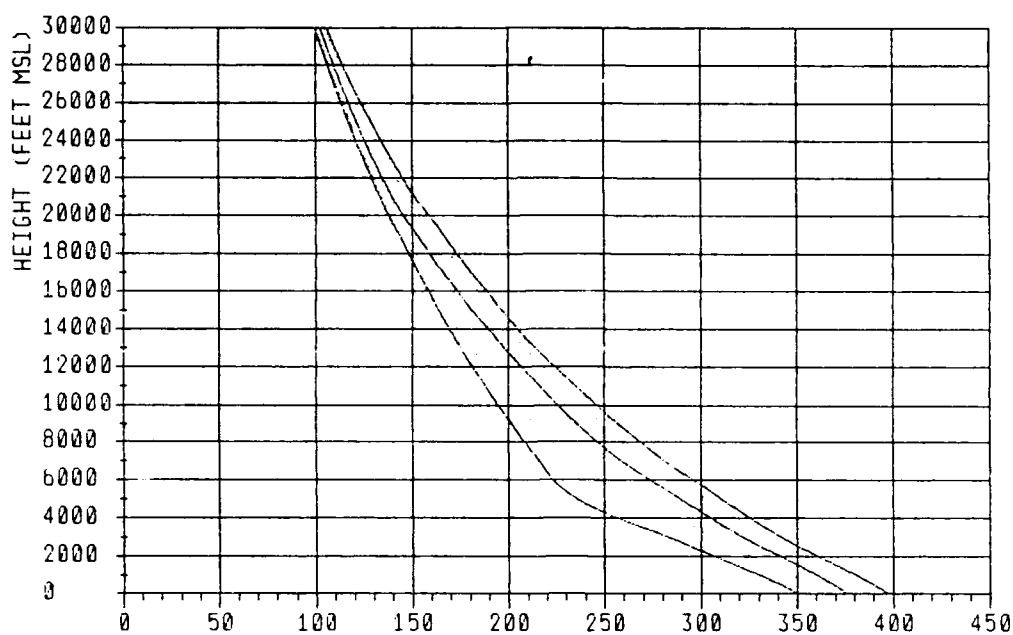
FIGURE B-11-5

B-189

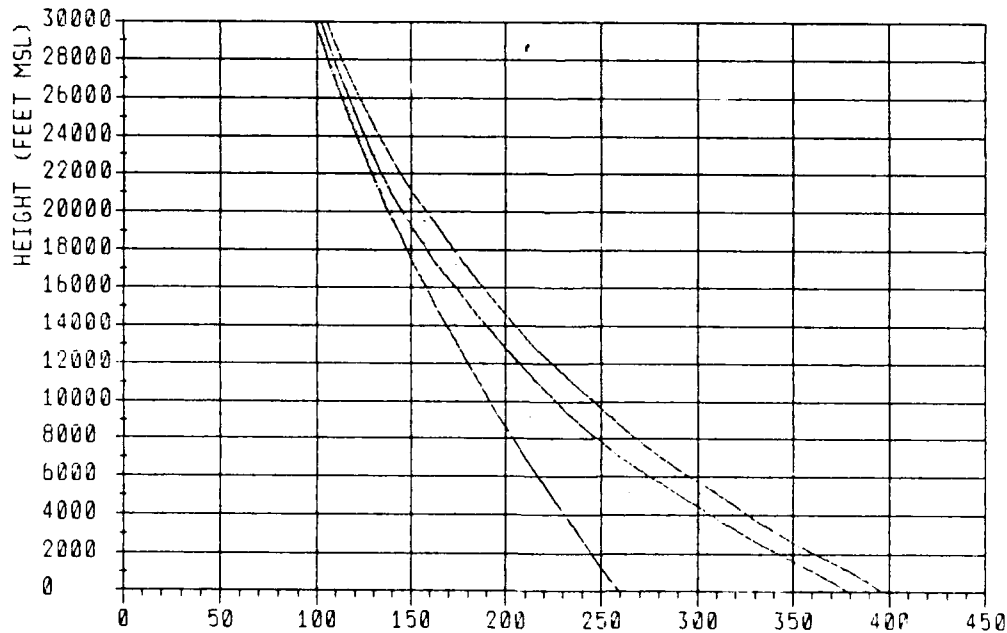
PIARCO

WET SEASON

N PERCENTILES



N (N-Units) 0000Z

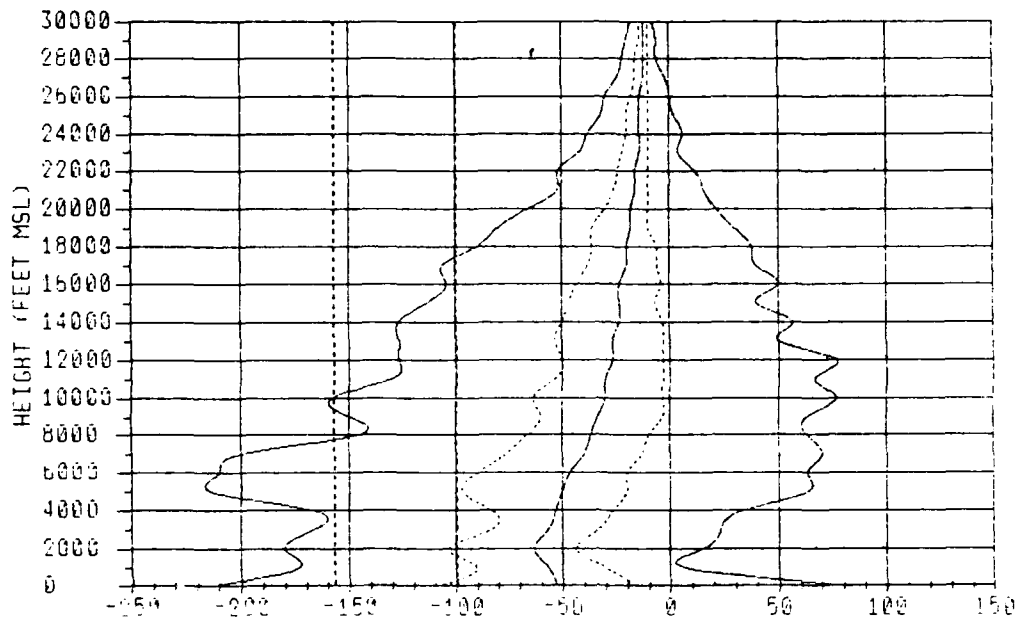


N (N-Units) 1200Z

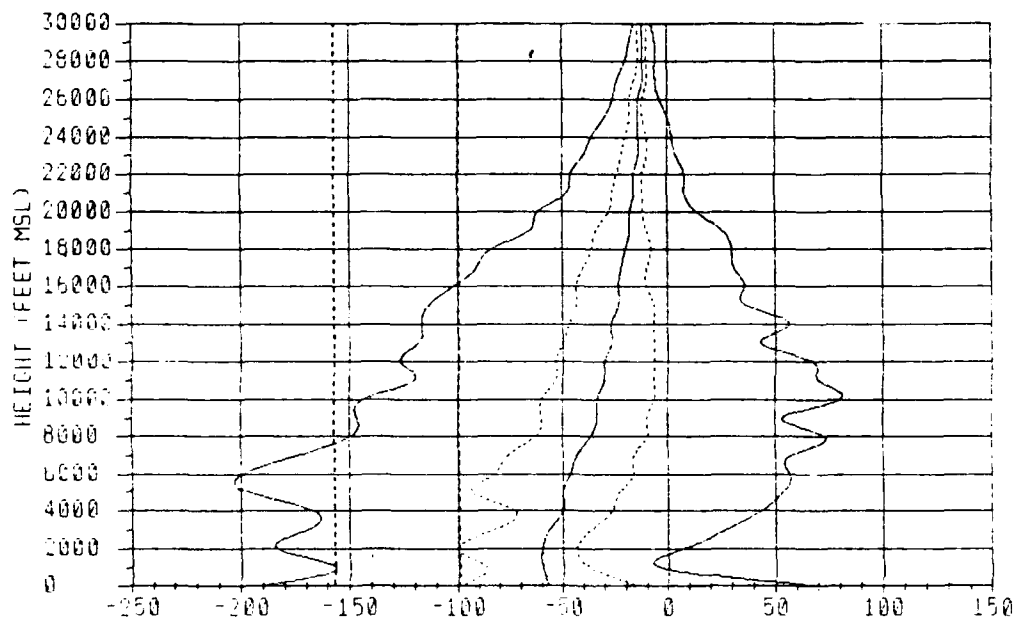
FIGURE B-12-1-A

B-190

GRADIENT PERCENTILES



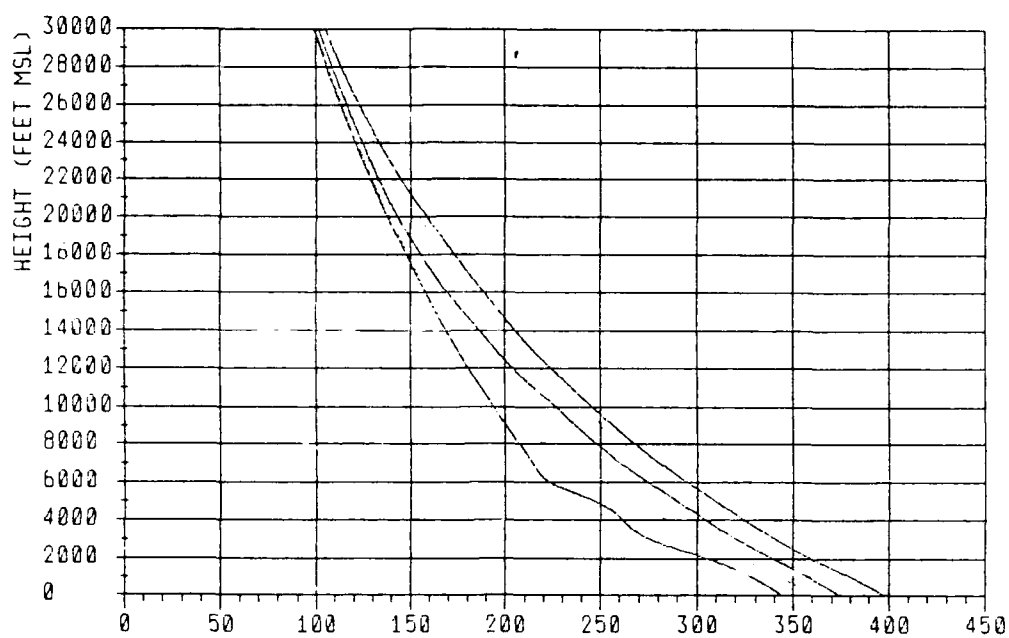
DNDH (N-Units/KM) 0000Z



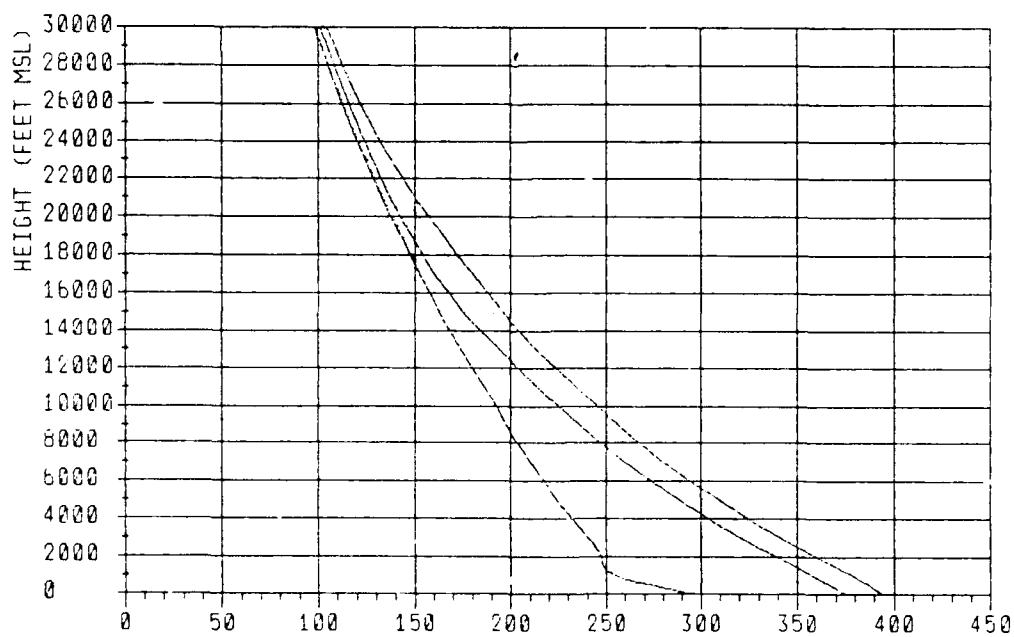
DNDH (N-Units/KM) 1200Z

FIGURE B-12-1-B

N PERCENTILES



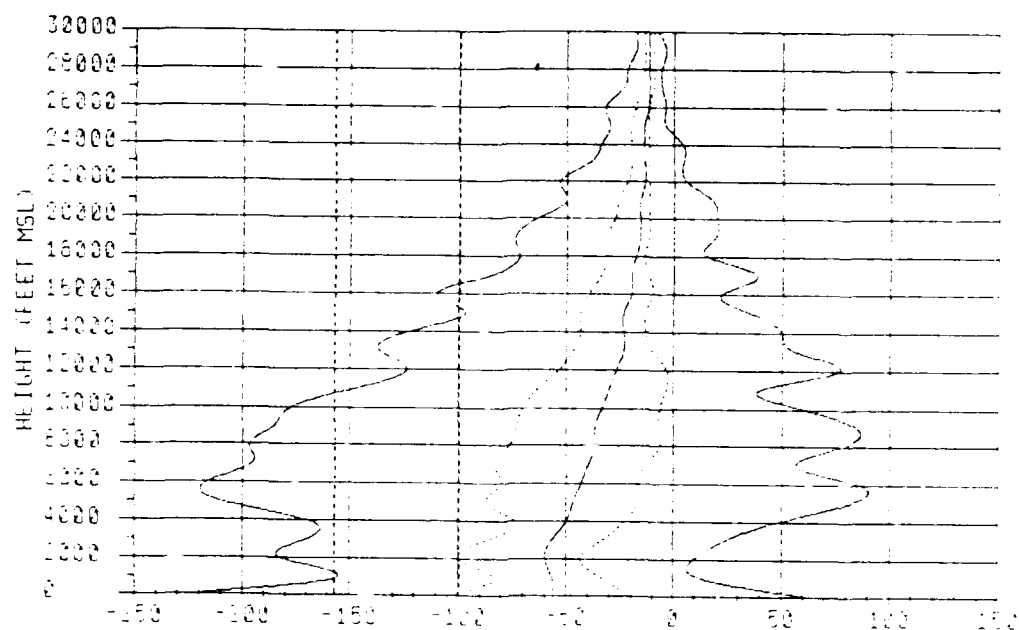
N (N-Units) 0000Z



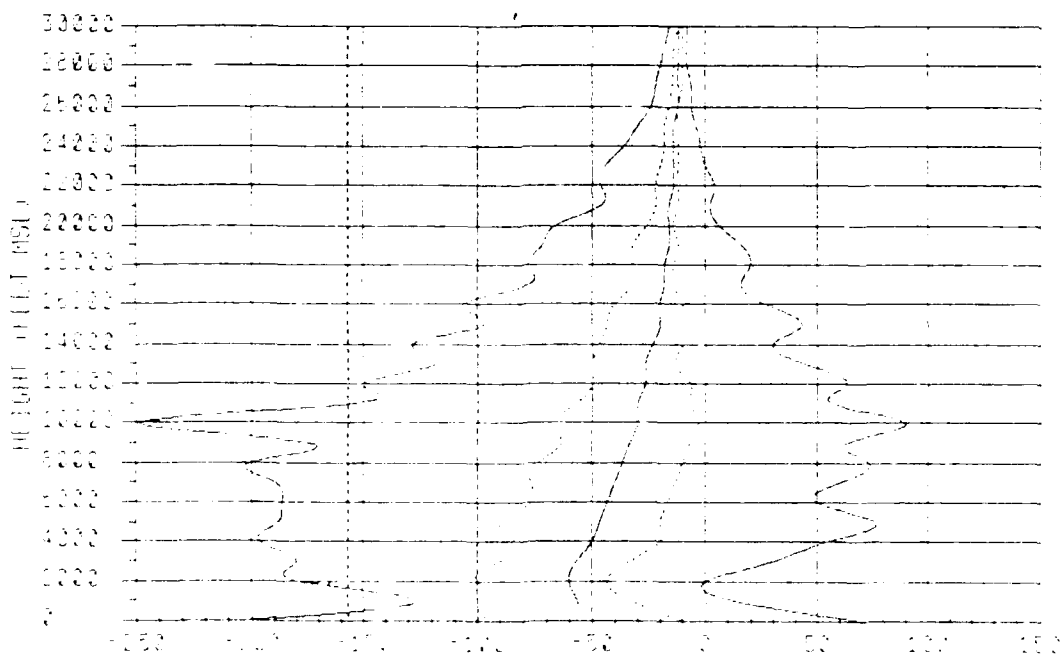
N (N-Units) 1200Z

FIGURE B-12-3-A

GRADIENT PERCENTILES



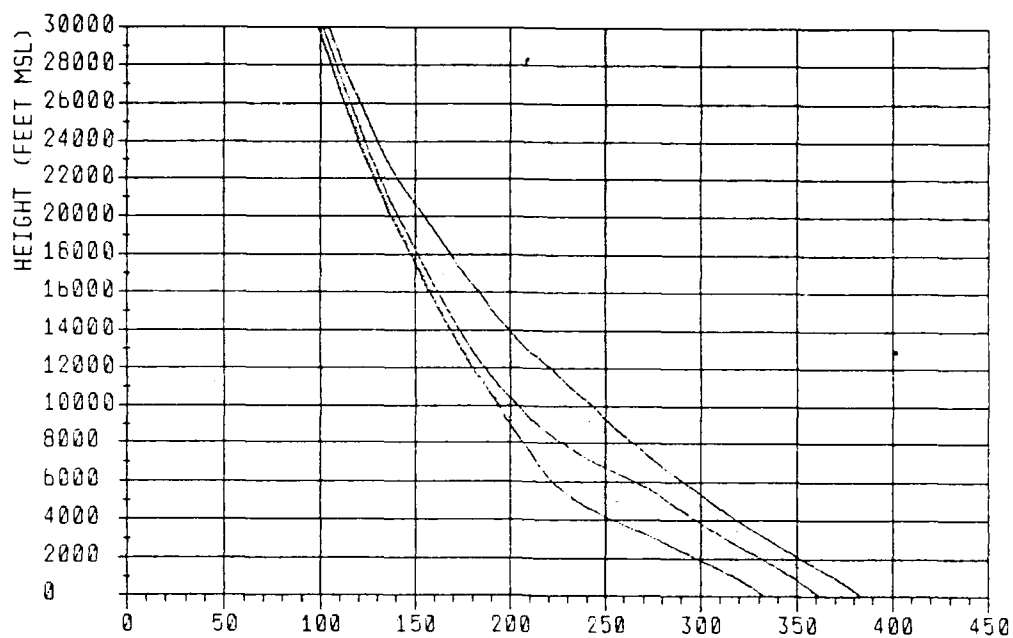
DNDH (N-Units/KM) 0000Z



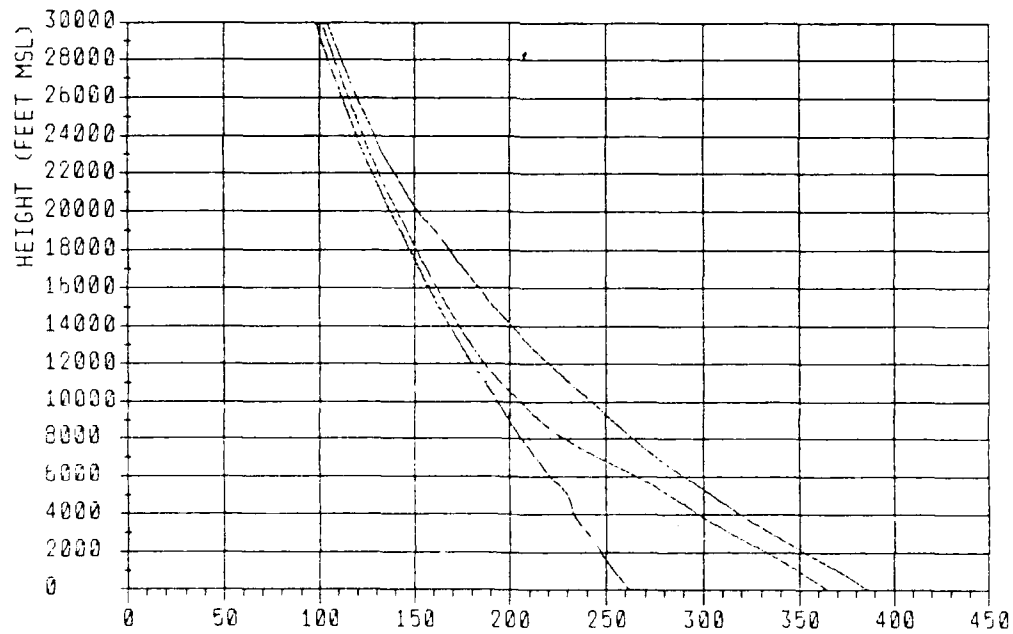
DNDH (N-Units/KM) 1200Z

FIGURE B-12-3-B

N PERCENTILES



N (N-Units) 0000Z

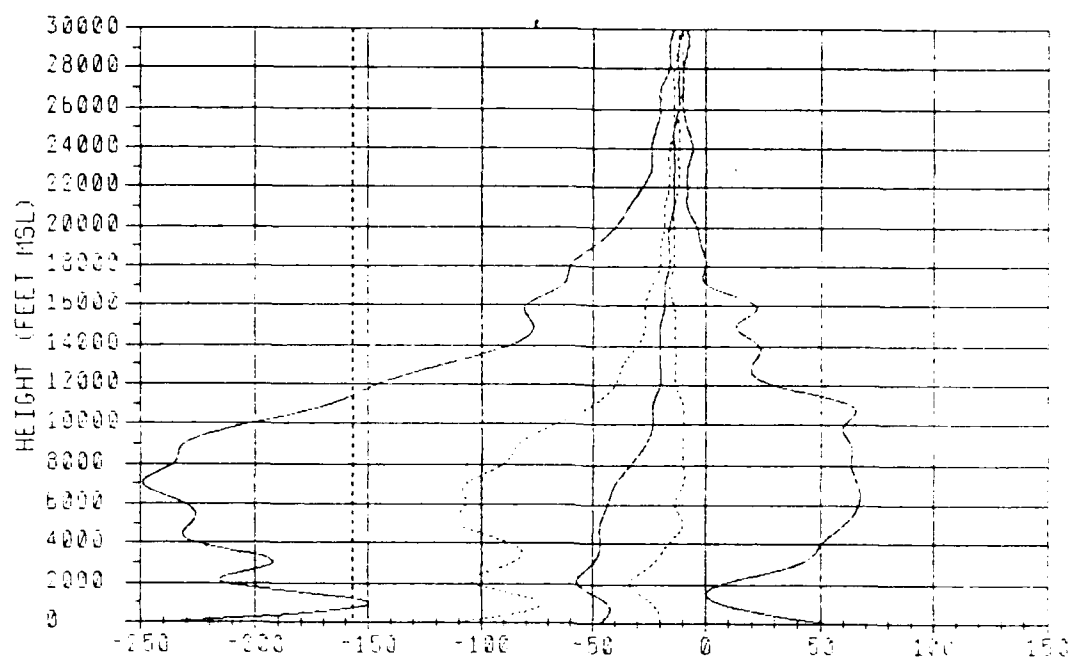


N (N-Units) 1200Z

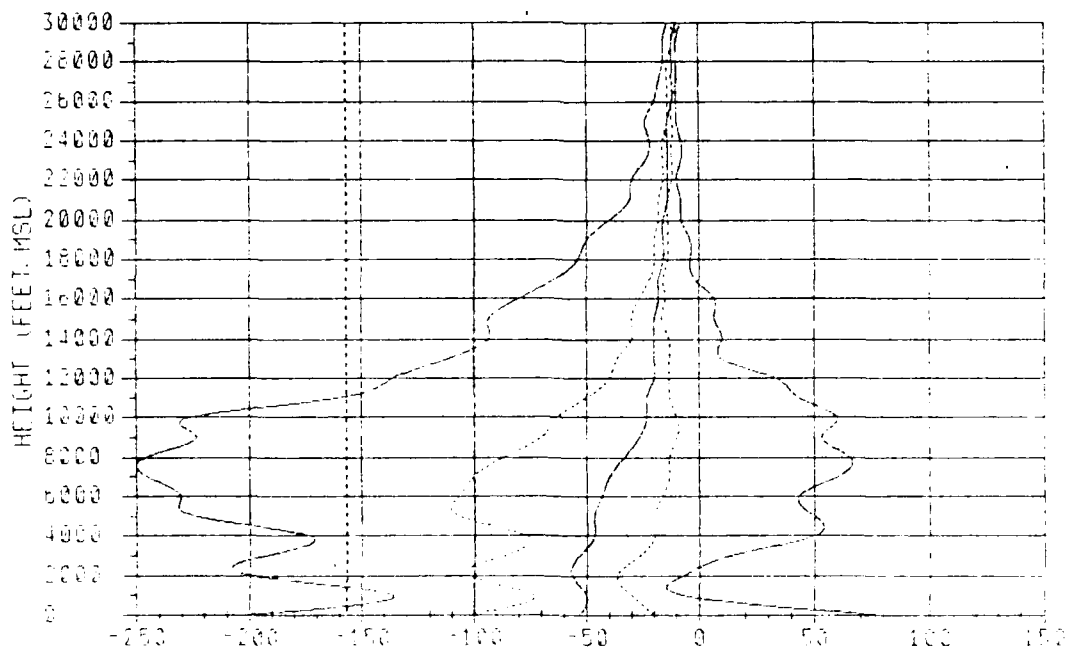
FIGURE B-12-4-A

B-198

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



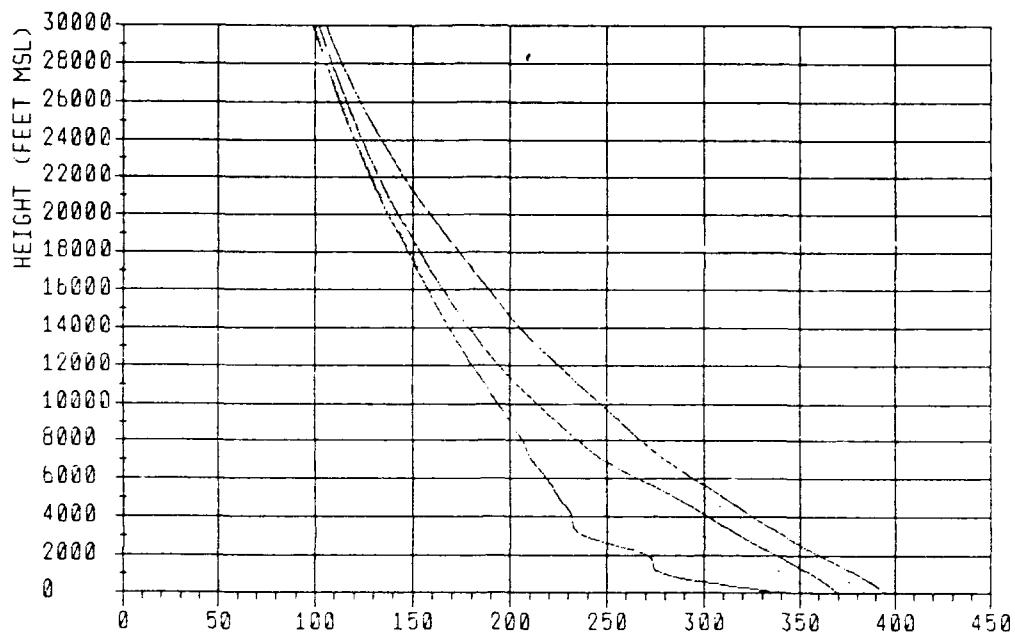
DNDH (N-Units/KM) 1200Z

FIGURE B-12-4-B

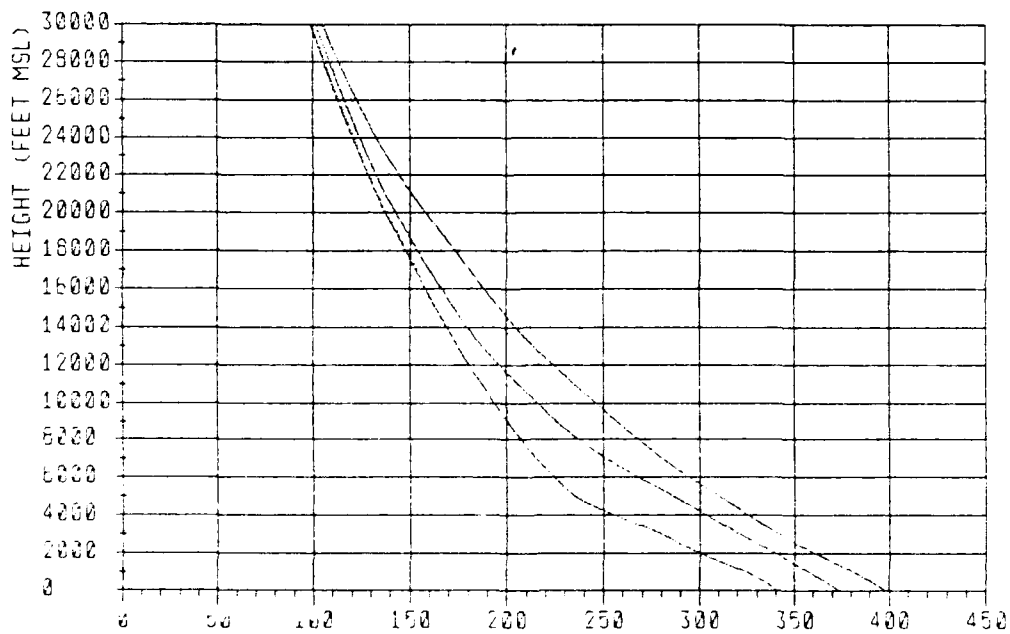
PIARCO

DRY-WET TRANSITION

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

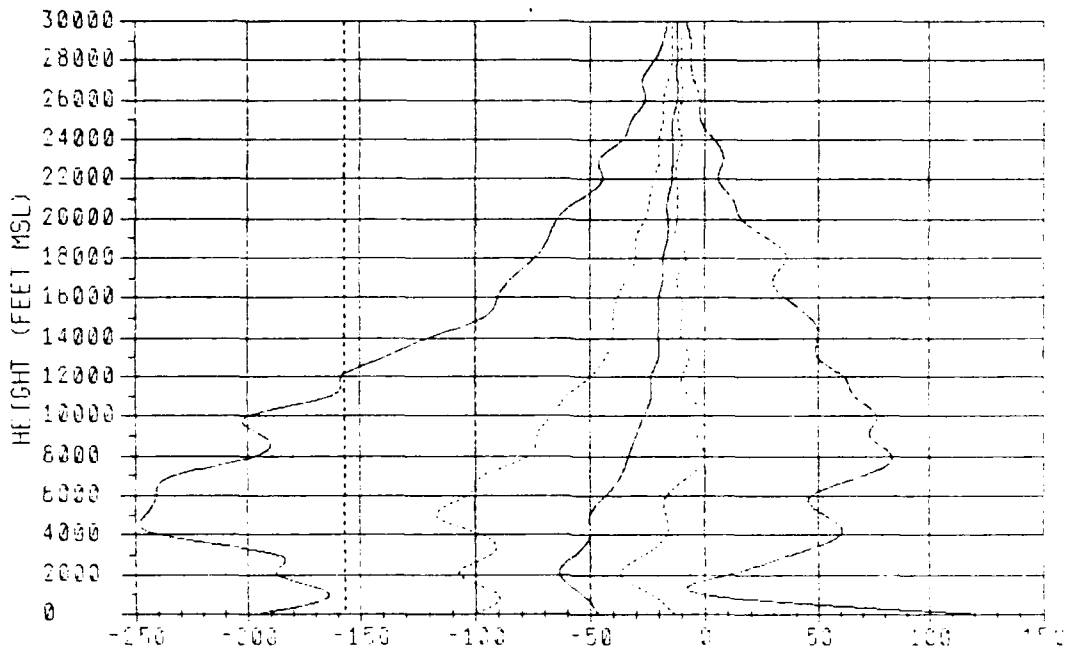
FIGURE B-12-5-A

B-202

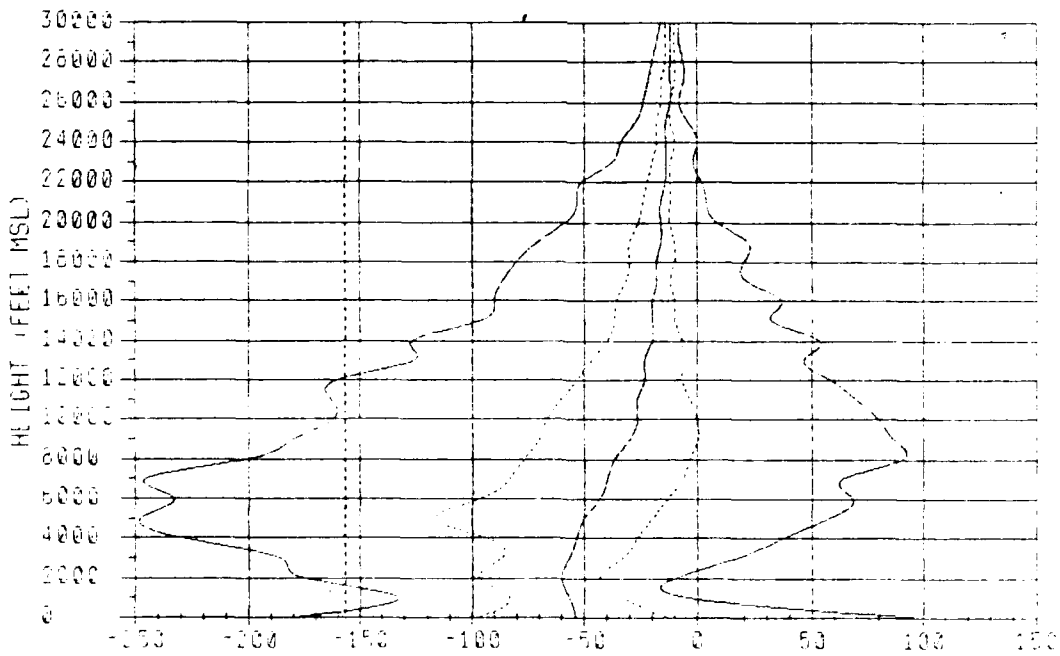
PIARCO

DRY-WET TRANSITION

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

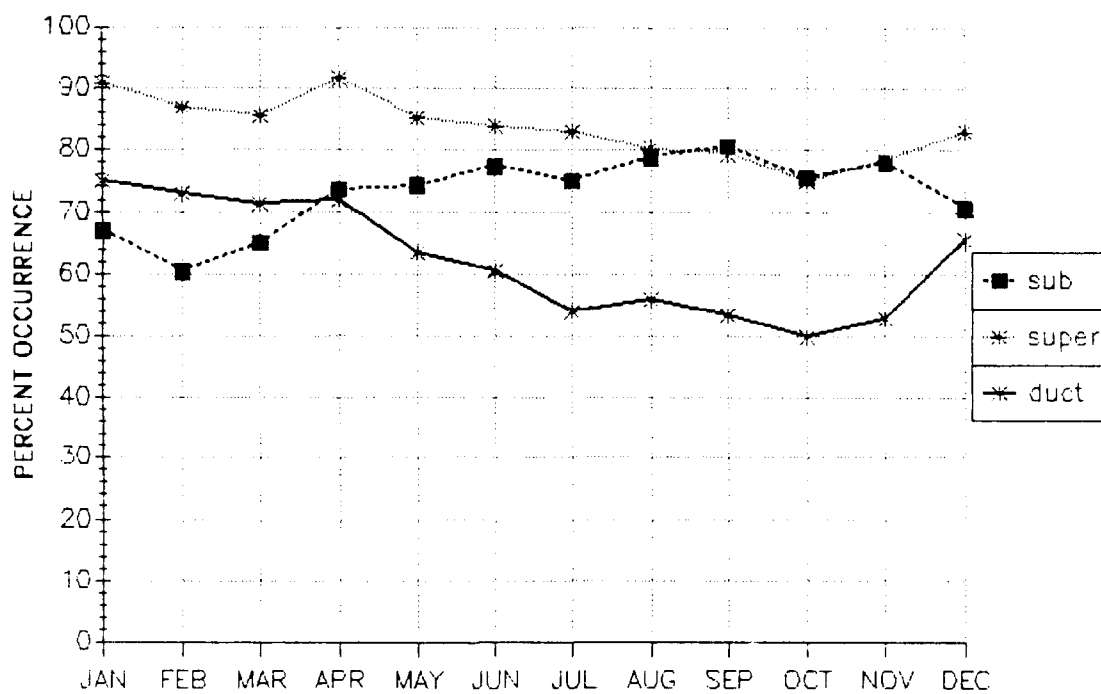


DNDH (N-Units/KM) 1200Z

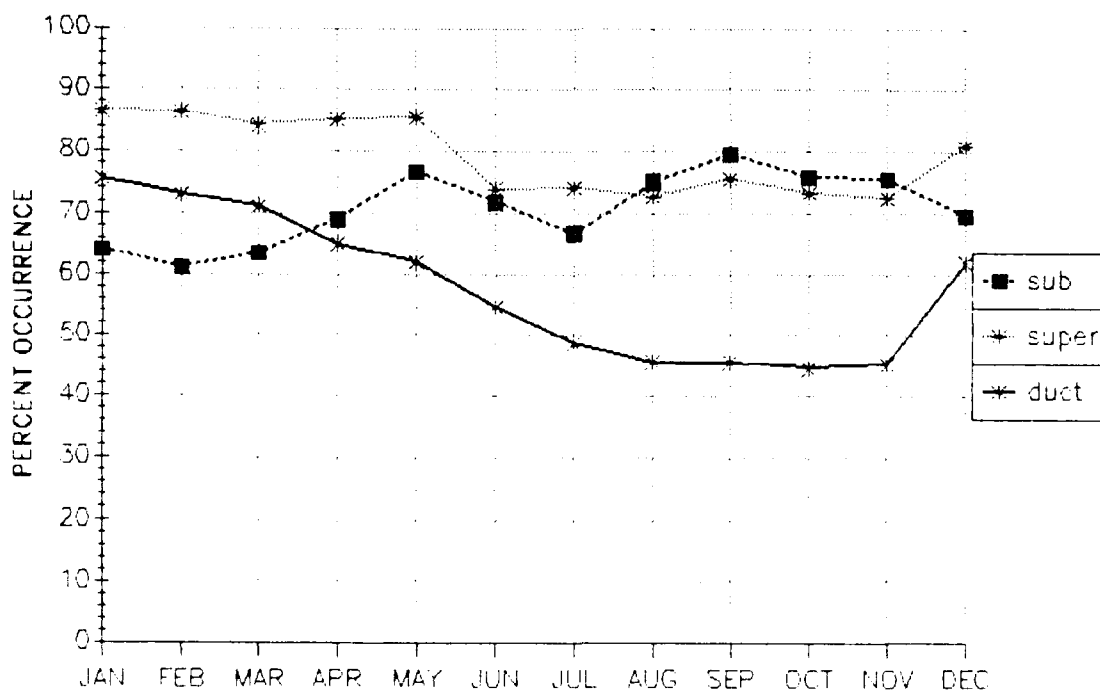
FIGURE B-12-5-B

B-203

AP PERCENT OCCURRENCE FREQUENCY



0000Z

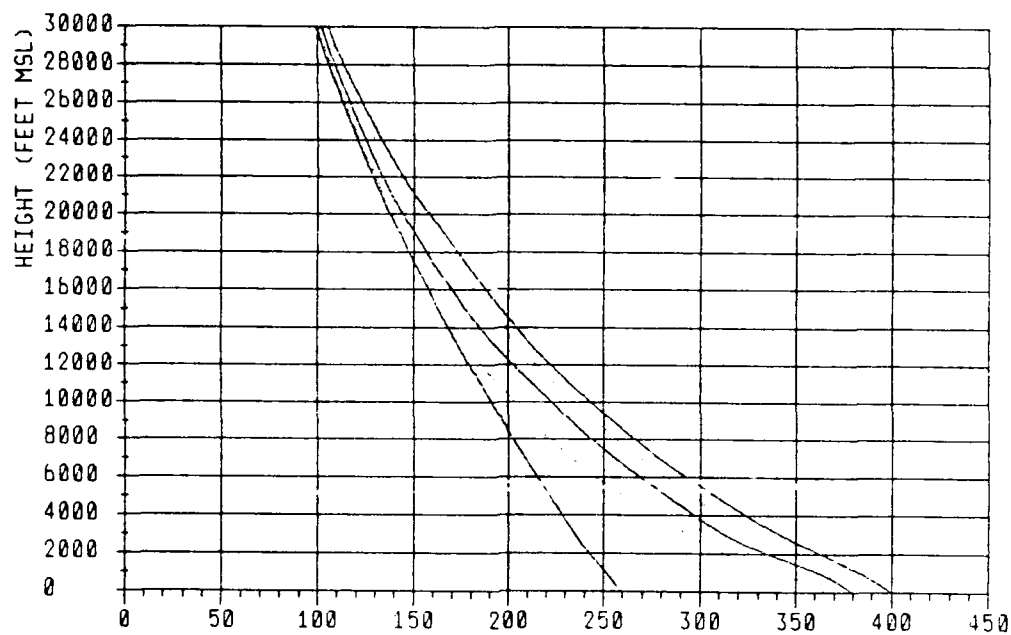


1200Z

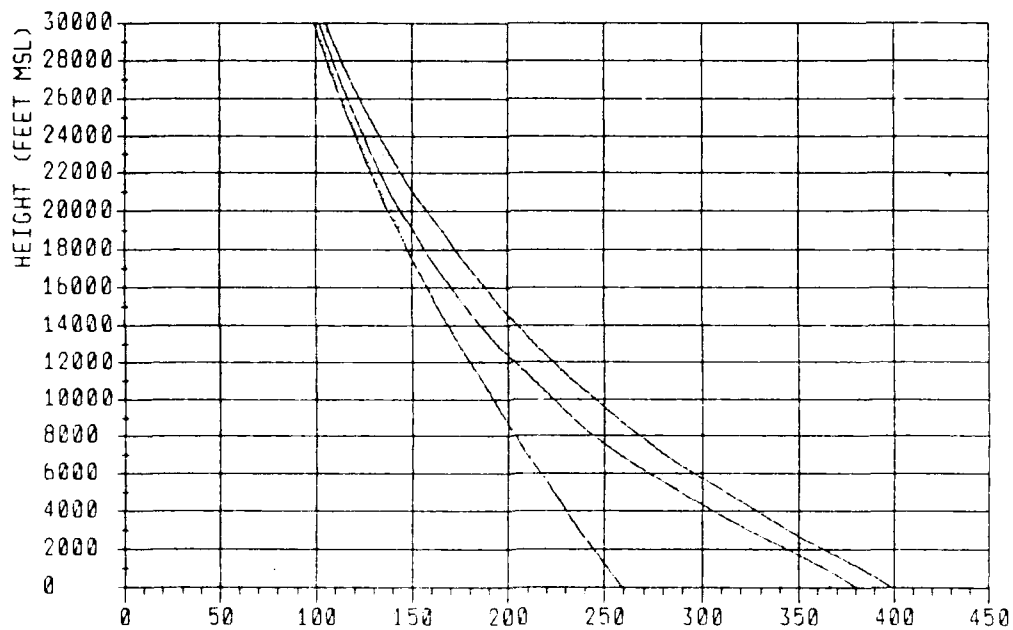
FIGURE B-12-6

B-206

N PERCENTILES



N (N-Units) 0000Z

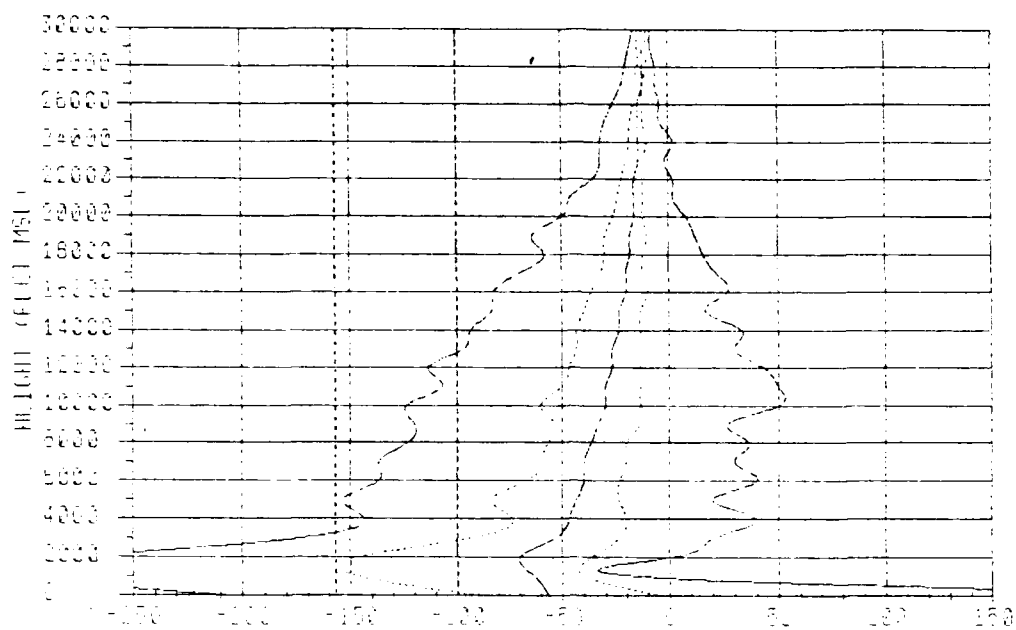


N (N-Units) 1200Z

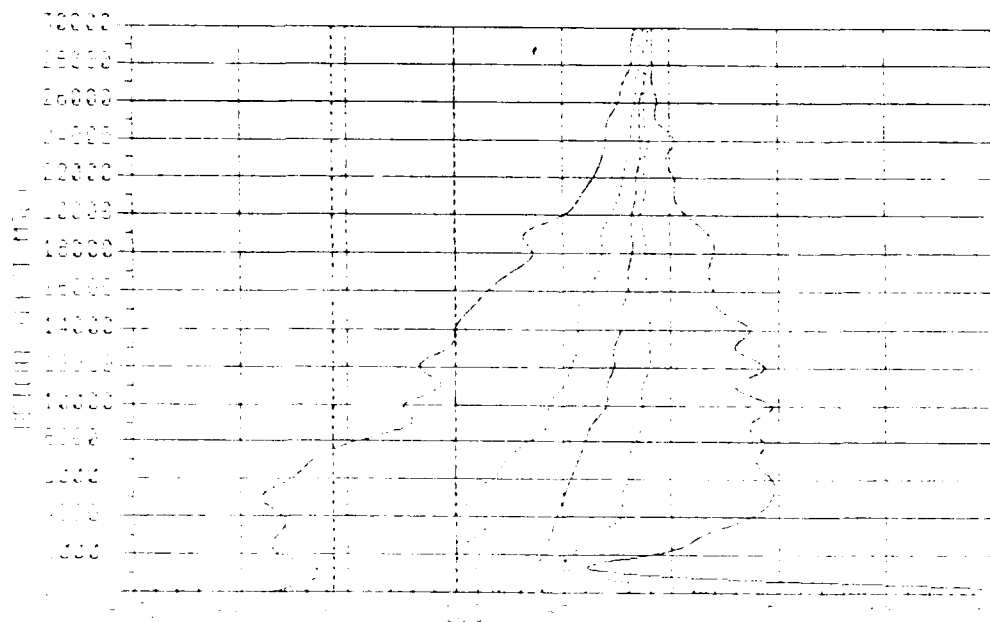
FIGURE B-13-1-A

B-207

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

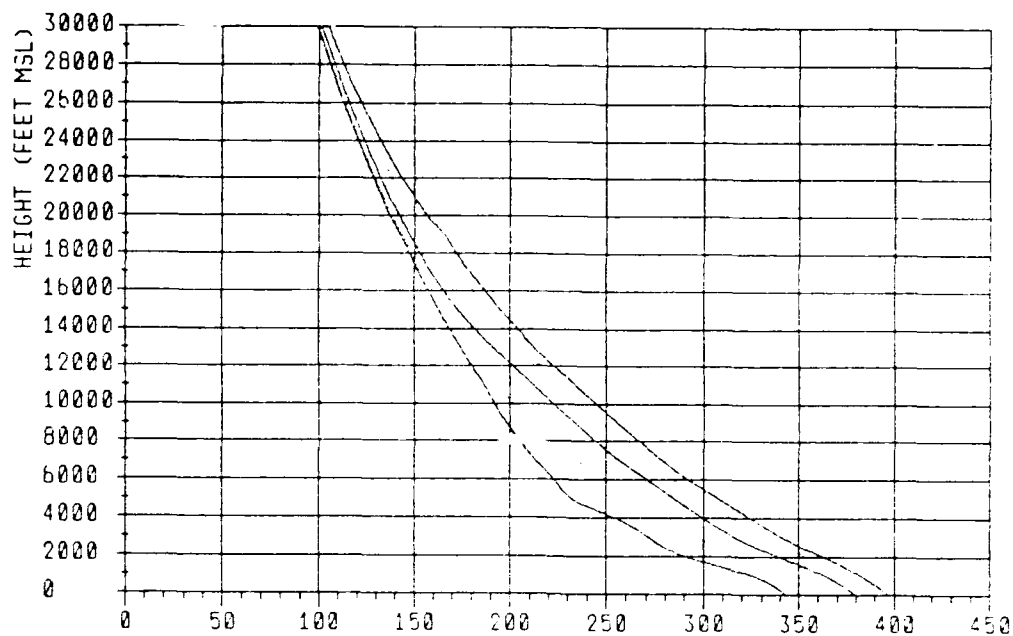


DNDH (N-Units/KM) 1200Z

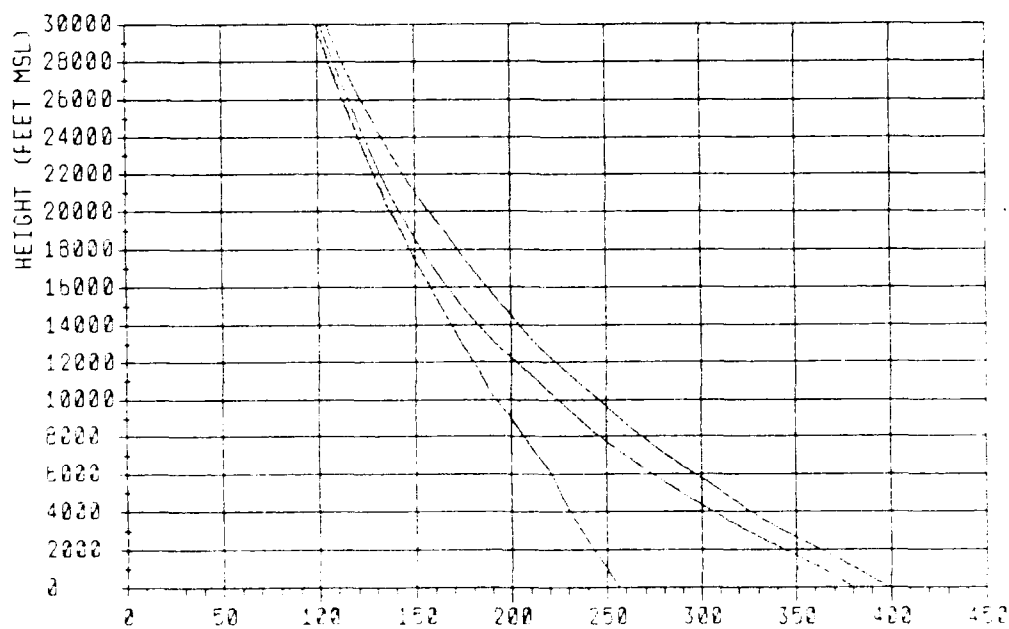
FIGURE B-13-1-B

B-208

N PERCENTILES



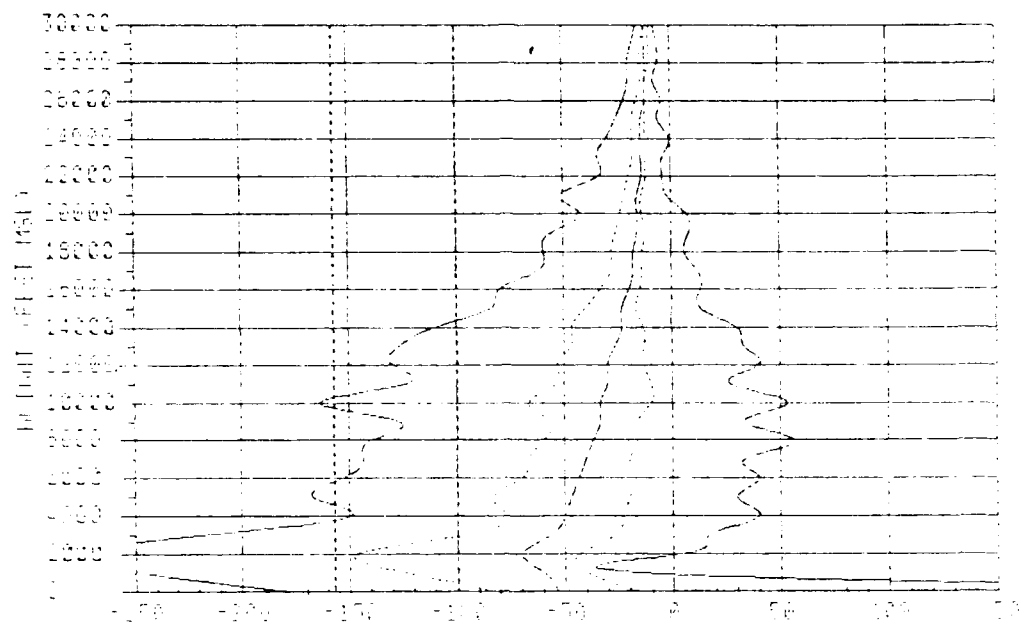
N (N-Units) 0000Z



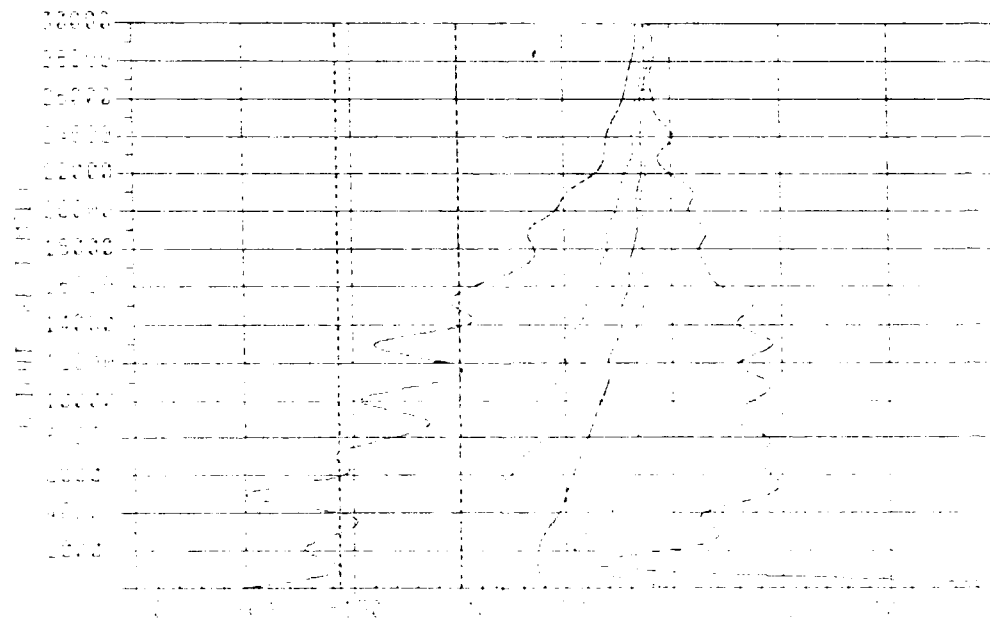
N (N-Units) 1200Z

FIGURE B-13-2-A

GRADIENT PERCENTILES



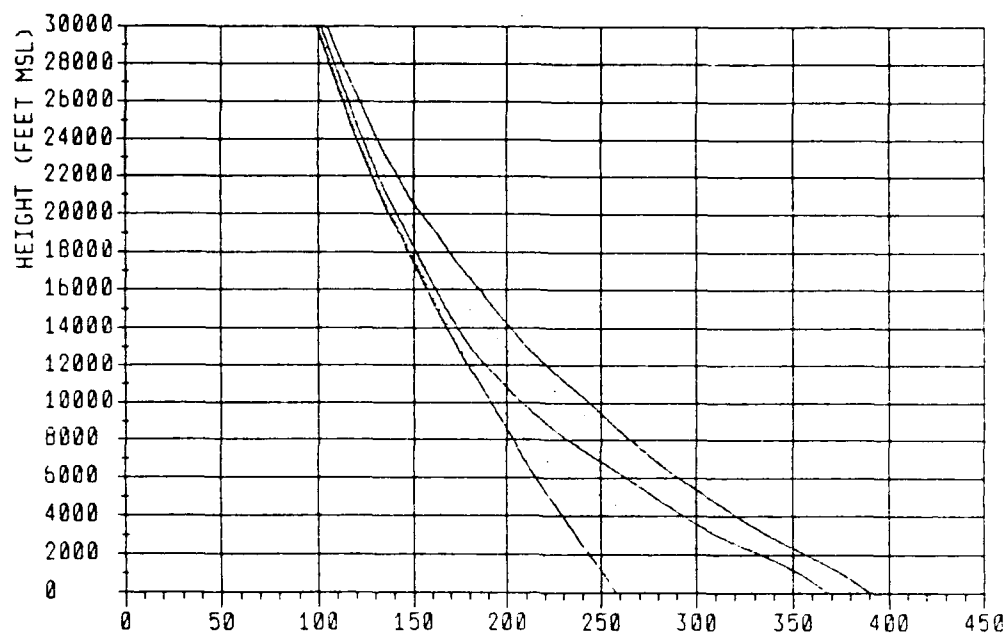
DNDH (N-Units/KM) 0000Z



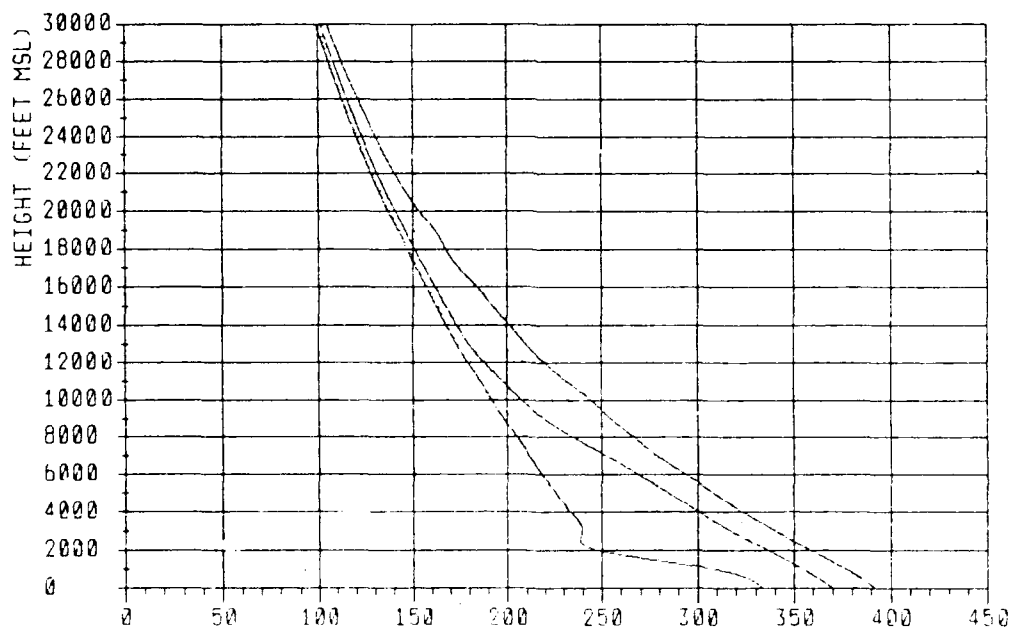
DNDH (N-Units/KM) 1200Z

FIGURE B-13-2-B

N PERCENTILES



N (N-Units) 0000Z

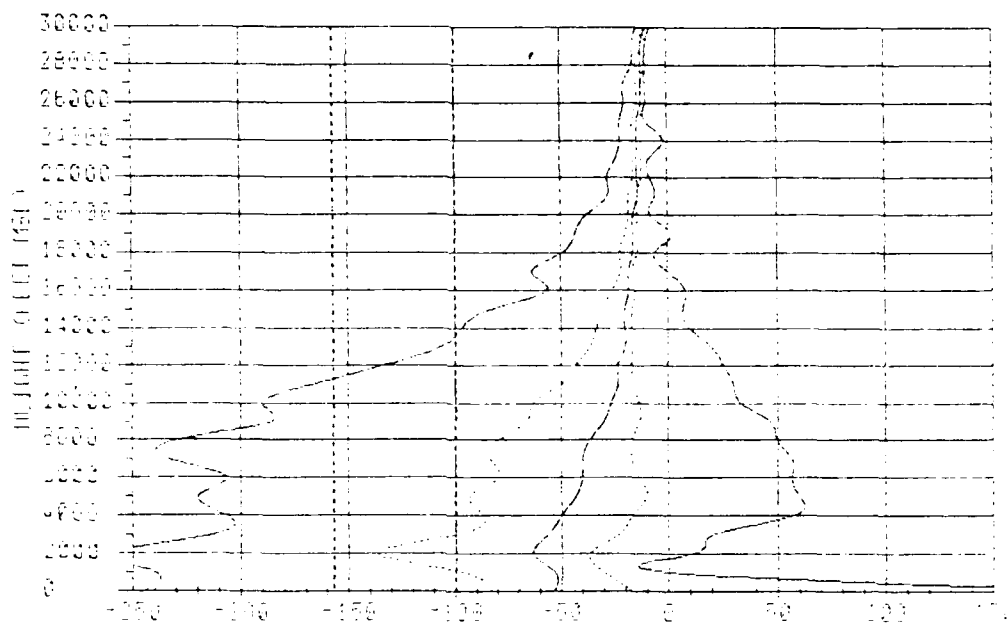


N (N-Units) 1200Z

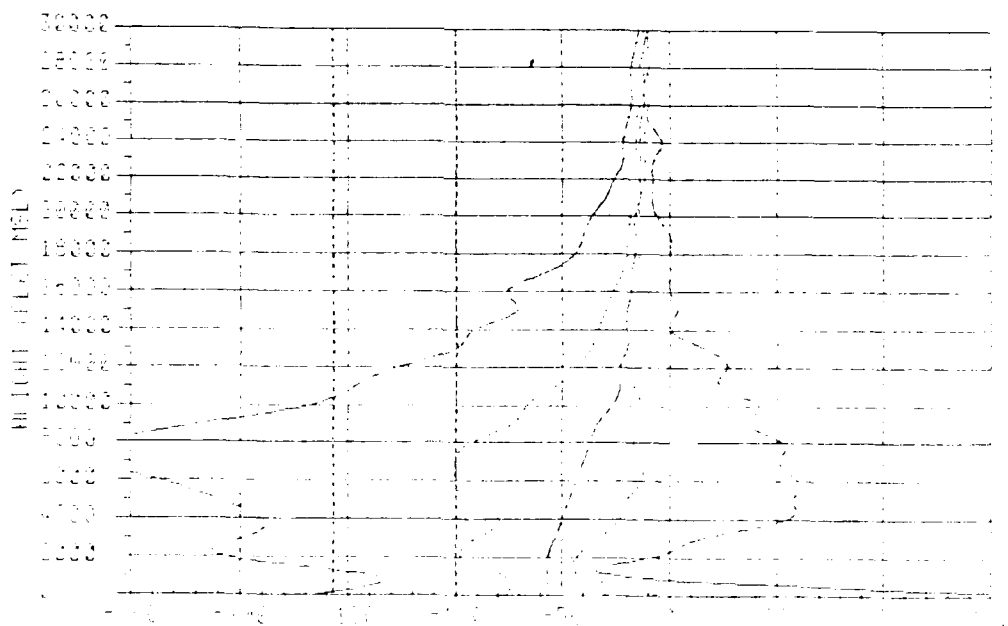
FIGURE B-13-3-A

B-215

GRADIENT PERCENTILES



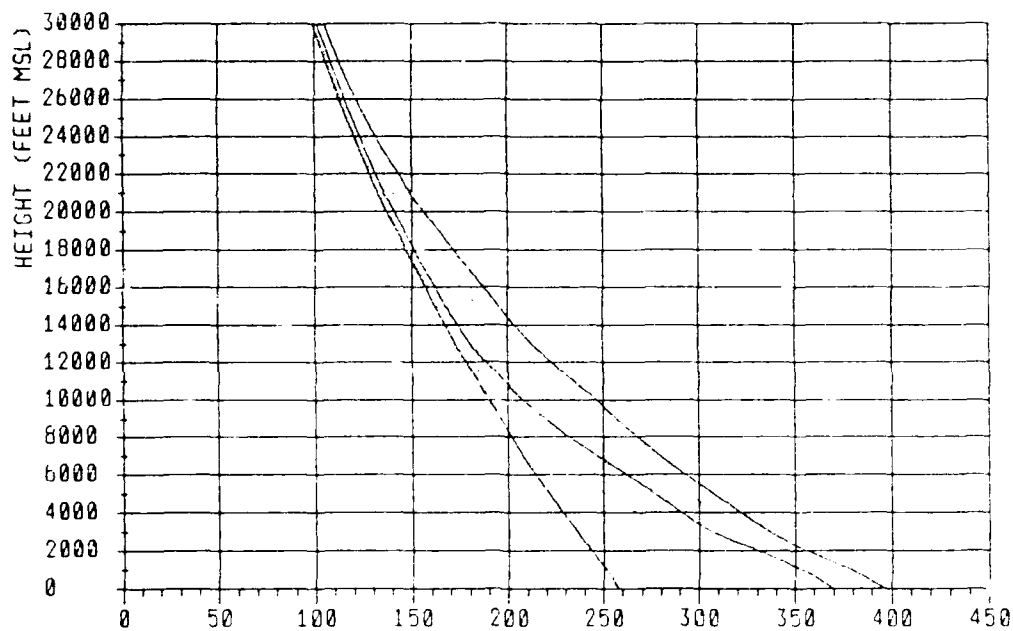
DNDH (N-Units/KM) 0000Z



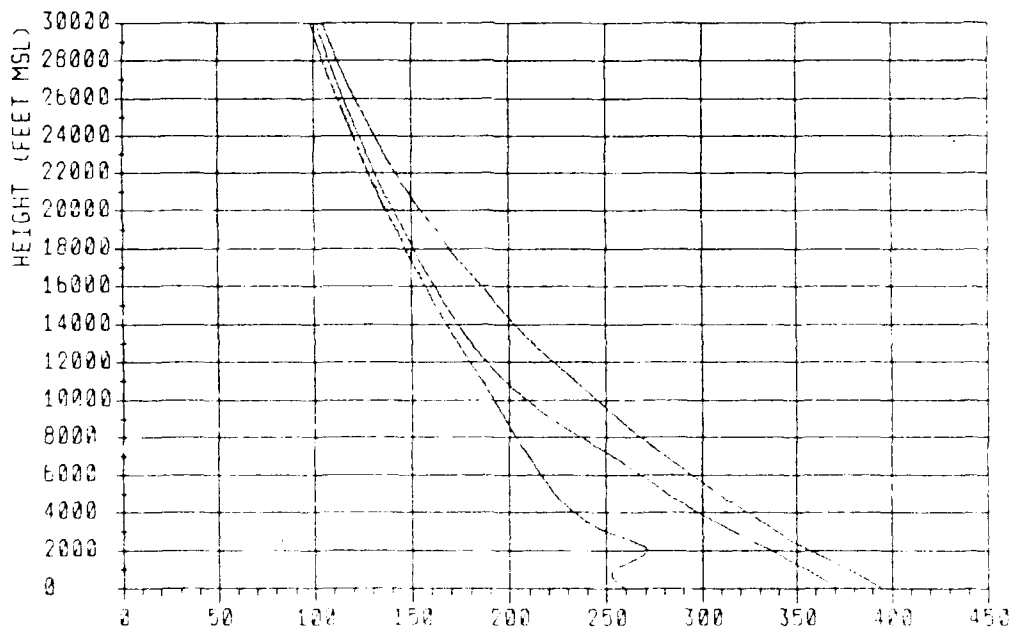
DNDH (N-Units/KM) 1200Z

FIGURE B-13-3-B

N PERCENTILES



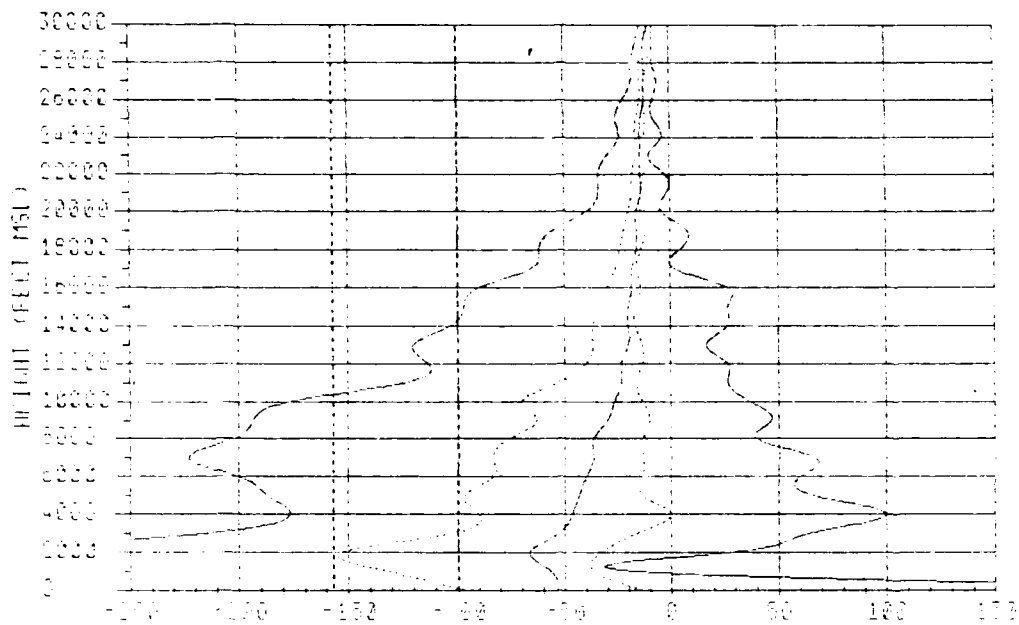
N (N-Units) 0000Z



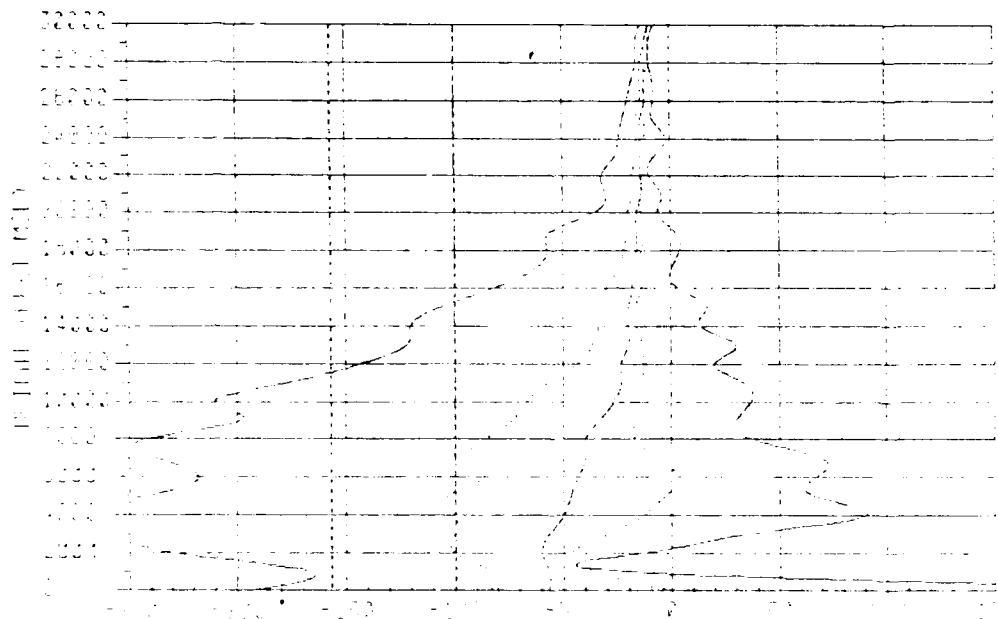
N (N-Units) 1200Z

FIGURE B-13-4-A

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z

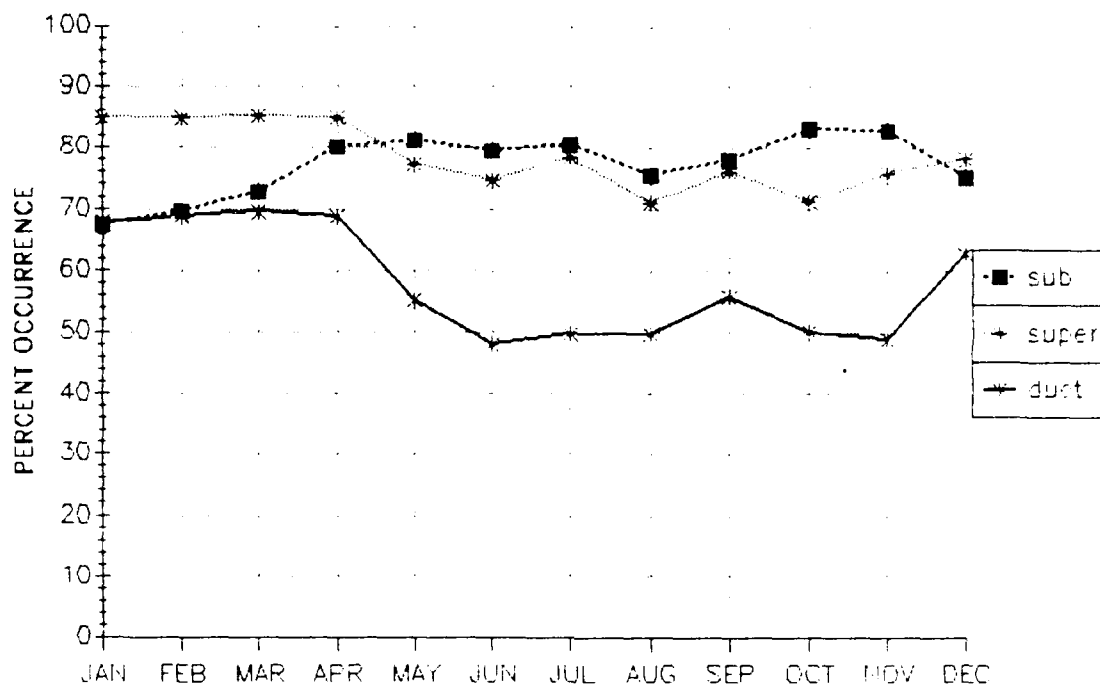


DNDH (N-Units/KM) 1200Z

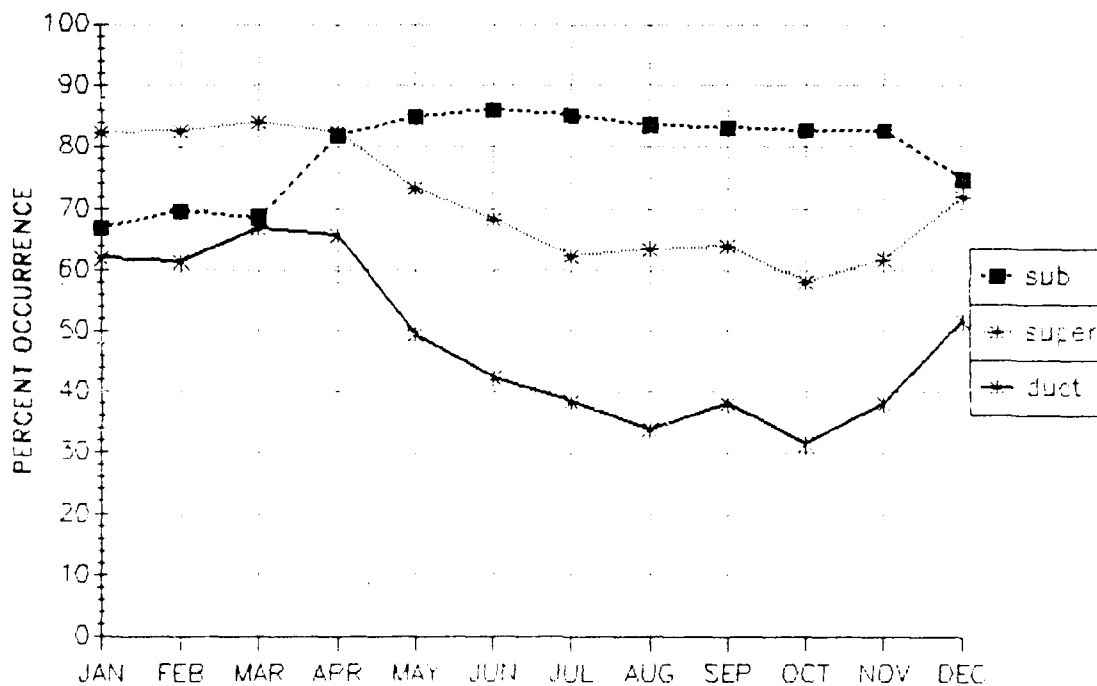
FIGURE B-13-4-B

B-220

AP PERCENT OCCURRENCE FREQUENCY



0000Z



1200Z

FIGURE B-13-5

B-223

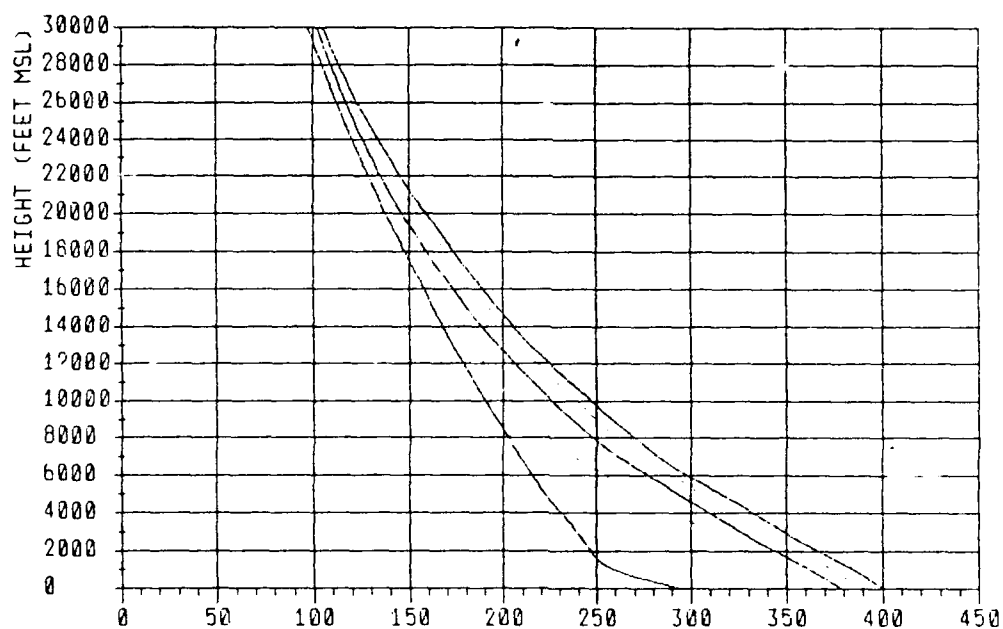
SAN ANDRES ISLAND

WET SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-14-1-A

B-224

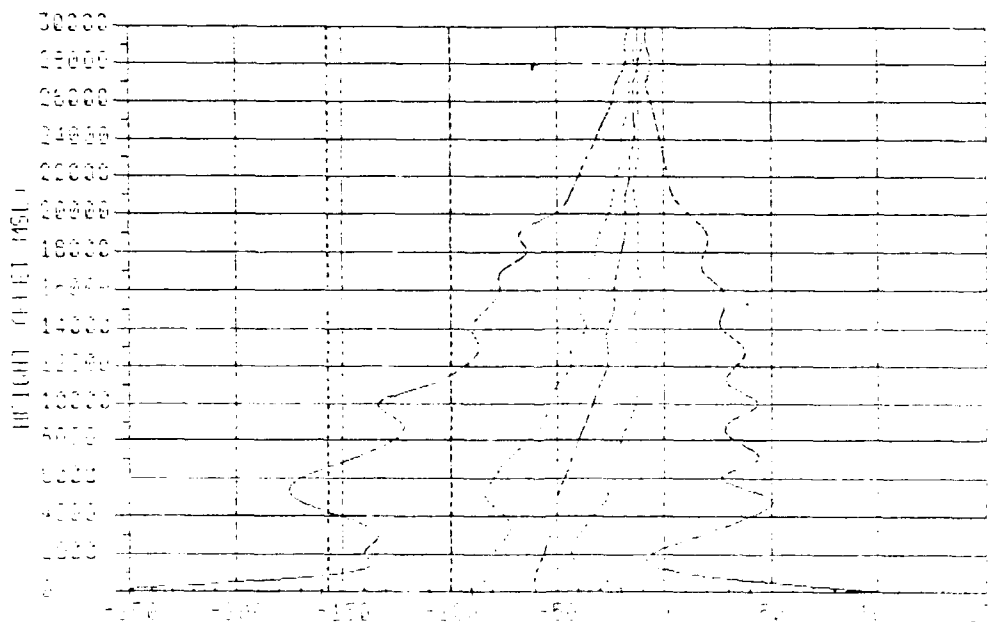
SAN ANDRES ISLAND

WET SEASON

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-14-1-B

B-225

SAN ANDRES ISLAND

WET SEASON

NO DATA AVAILABLE

0000Z

HGT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT DUCT	OCCURRENCE SRLR SUB	
	1%	10%	50%	90%	95%	1%	10%	50%	90%	95%			
SFC-900	259.75	371.37	383.23	394.08	402.08	-356.19	-139.58	-58.33	16.66	150.70	16.6	21.4	26.6
900-1000	254.80	359.56	375.19	385.73	396.19	-137.80	-77.08	-58.33	-27.08	12.50	1.2	2.8	3.0
1000-1500	250.80	351.08	387.08	377.08	387.32	-158.25	-77.08	-58.33	-30.07	18.68	1.5	4.2	2.6
1500-2000	247.15	342.00	358.25	368.58	378.83	-147.91	-83.33	-60.41	-37.80	-6.28	1.8	6.7	1.8
2000-2500	243.63	332.38	349.18	359.08	369.17	-150.00	-81.25	-60.41	-43.75	-10.42	1.7	5.8	0.8
2500-3000	239.73	322.19	339.00	349.26	359.85	-138.28	-77.08	-58.28	-43.75	0.00	1.0	5.0	1.5
3000-3500	236.05	312.69	329.58	339.38	349.53	-133.33	-75.00	-58.25	-39.58	14.58	1.2	4.8	2.6
3500-4000	232.47	304.15	321.08	330.88	341.88	-127.08	-72.91	-54.16	-35.41	22.91	0.9	4.2	2.9
4000-4500	228.92	295.75	312.94	322.89	334.00	-132.10	-72.91	-50.00	-31.25	38.58	1.3	4.4	3.9
4500-5000	225.70	287.58	305.18	315.18	326.68	-191.04	-81.25	-50.00	-27.08	50.00	4.8	8.8	7.0
5000-6000	218.10	272.08	292.08	304.25	314.00	-188.32	-83.33	-50.00	-28.89	38.88	5.0	9.3	7.5
6000-7000	212.43	252.70	278.08	288.08	298.15	-185.98	-79.18	-46.74	-26.69	25.00	4.4	11.6	8.7
7000-8000	206.11	238.70	261.00	274.25	282.00	-146.27	-73.30	-43.75	-23.30	43.38	3.5	8.2	6.8
8000-9000	199.39	223.20	246.80	260.52	268.78	-126.89	-62.50	-39.97	-19.82	38.71	2.3	8.2	5.2
9000-10000	193.00	212.50	234.70	247.80	255.70	-119.92	-58.64	-36.59	-18.68	28.95	1.9	3.8	7.6
10000-11000	187.25	203.10	223.80	236.30	244.90	-129.95	-53.38	-30.07	-13.41	39.97	3.2	5.8	11.8
11000-12000	181.00	195.80	213.40	225.30	232.90	-108.88	-48.74	-28.95	-13.41	30.07	1.7	4.3	9.6
12000-13000	175.40	187.91	204.30	218.40	221.80	-95.93	-43.38	-26.69	-13.28	38.89	0.8	3.2	10.4
13000-14000	169.60	180.90	195.10	206.40	212.20	-89.87	-40.10	-26.69	-13.41	33.33	1.3	3.0	9.2
14000-15000	164.40	174.00	188.20	197.70	202.90	-89.97	-38.97	-23.44	-13.28	28.69	1.3	3.0	10.0
15000-16000	159.28	167.60	178.30	188.80	194.80	-79.95	-38.97	-23.30	-13.28	28.89	0.9	1.9	10.6
16000-17000	154.30	151.80	171.20	182.00	187.00	-75.99	-38.01	-22.03	-12.03	25.00	0.3	1.8	9.7
17000-18000	148.33	155.90	163.70	173.99	178.40	-70.00	-32.03	-20.00	-12.03	20.00	0.7	0.9	7.8
18000-19000	144.04	149.80	158.80	164.40	171.10	-70.00	-31.95	-20.00	-12.03	20.00	1.4	1.3	9.9
19000-20000	139.38	144.40	149.80	158.60	163.20	-54.02	-28.04	-18.04	-12.03	12.03	0.1	0.3	8.3
20000-21000	134.80	139.50	144.10	152.00	158.19	-52.03	-28.01	-17.98	-13.88	10.00	0.1	0.4	8.1
21000-22000	129.48	134.70	138.80	145.70	149.70	-42.03	-23.98	-18.01	-13.88	3.88	0.1	0.3	4.0
22000-23000	125.19	130.20	133.80	139.60	143.50	-38.04	-21.95	-18.01	-12.03	2.03	0.0	0.1	3.5
23000-24000	120.34	125.10	128.50	133.60	137.40	-30.78	-20.00	-15.94	-12.03	-1.95	0.1	0.1	2.4
24000-25000	116.85	120.70	123.60	128.00	131.20	-32.03	-20.00	-13.98	-11.95	-2.03	0.1	0.4	2.5
25000-26000	111.81	118.70	119.30	122.80	127.70	-28.01	-17.98	-13.88	-11.95	-5.09	0.0	0.1	1.1
26000-27000	107.60	112.80	115.10	118.00	120.80	-24.73	-16.01	-13.88	-11.95	-7.97	0.0	0.0	0.6
27000-28000	103.74	108.50	110.80	113.40	115.80	-20.00	-16.01	-12.03	-11.95	-6.02	0.0	0.0	0.4
28000-29000	99.92	104.80	106.70	108.80	110.50	-18.04	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
29000-30000	96.40	101.30	103.10	104.90	106.40	-18.01	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
30000-31000	92.70	98.00	99.80	101.30	102.57	-18.01	-12.03	-11.88	-10.00	-7.97	0.0	0.0	0.1
31000-32000	89.30	94.50	96.10	97.80	99.00	-33.58	-12.03	-10.00	-10.00	-7.97	0.1	0.0	0.8
32000-33000	88.04	90.90	92.80	94.20	95.30	-13.88	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.2
33000-34000	82.98	87.80	89.20	90.50	91.40	-20.00	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	80.79	85.70	88.60	87.60	88.70	-24.74	-11.95	-10.00	-7.97	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-14-1-C

B-226

SAN ANDRES ISLAND

WET SEASON

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	%FRD	DUCTS THK PERCENTILES			%FRD	SRLRS THK PERCENTILES			%FRD	NORMAL THK PERCENTILES			%FRD	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	16.8	190	289	295	21.4	98	289	387	97.0	1476	8655	35171	16.6	98	289	387
500-1000	0.4	98	295	492	0.9	98	197	1614	2.7	98	3593	34784	1.1	98	194	984
1000-1500	1.0	226	492	965	3.2	98	591	1181	2.5	98	5659	34360	1.1	98	194	984
1500-2000	1.1	197	295	551	3.9	98	541	1191	3.1	157	3937	33460	0.3	105	194	1181
2000-2500	1.0	128	295	896	2.4	98	295	1083	3.9	502	2854	31631	0.6	105	191	2854
2500-3000	0.7	197	295	689	2.8	98	492	1083	1.4	98	5315	31631	0.9	115	187	2146
3000-3500	0.9	118	295	591	2.4	98	492	1083	2.9	98	1772	31825	1.6	98	194	1078
3500-4000	0.5	98	344	886	1.9	118	492	886	3.6	98	2658	31157	1.1	106	689	1240
4000-4500	1.1	138	394	591	2.4	98	492	1181	1.1	96	787	6976	2.1	105	492	801
4500-5000	4.0	98	295	502	7.1	98	197	905	8.8	98	5315	30250	4.3	118	194	1055
5000-6000	2.9	197	295	630	5.9	98	246	787	12.2	98	3051	29601	4.2	98	195	1085
6000-7000	3.3	98	295	482	9.6	98	295	787	11.5	98	4036	28577	4.7	98	194	984
7000-8000	2.9	98	295	394	6.5	98	295	787	11.6	98	3937	27597	5.3	197	194	1119
8000-9000	2.1	98	197	394	4.5	98	295	591	11.2	98	3790	26510	6.9	98	194	1181
9000-10000	1.5	197	295	394	3.2	98	295	591	7.4	98	2264	25727	4.7	98	195	886
10000-11000	2.8	98	197	295	5.2	98	197	394	14.7	98	4527	24738	8.8	98	194	1014
11000-12000	1.5	98	197	394	3.9	98	197	492	8.1	98	3937	23656	6.5	108	194	1085
12000-13000	0.6	98	197	197	2.7	98	197	394	9.5	98	3297	22577	7.1	98	194	984
13000-14000	1.2	98	98	295	2.7	98	148	295	7.1	78	2887	2165	6.2	98	194	896
14000-15000	1.3	98	98	236	2.8	98	148	295	9.2	98	2133	20653	7.7	98	194	886
15000-16000	0.9	98	98	197	1.7	98	148	295	9.0	98	3215	19620	7.7	98	194	820
16000-17000	0.3	164	164	164	1.5	98	164	344	8.6	318	4347	18704	6.6	164	492	981
17000-18000	0.7	164	164	164	0.6	164	164	164	7.3	607	6808	17881	5.5	164	492	820
18000-19000	1.4	164	164	164	1.7	164	164	328	10.4	656	15256	16569	8.4	164	108	656
19000-20000	0.1	164	164	164	0.5	164	164	164	5.7	820	14928	15748	4.7	164	492	920

1200Z

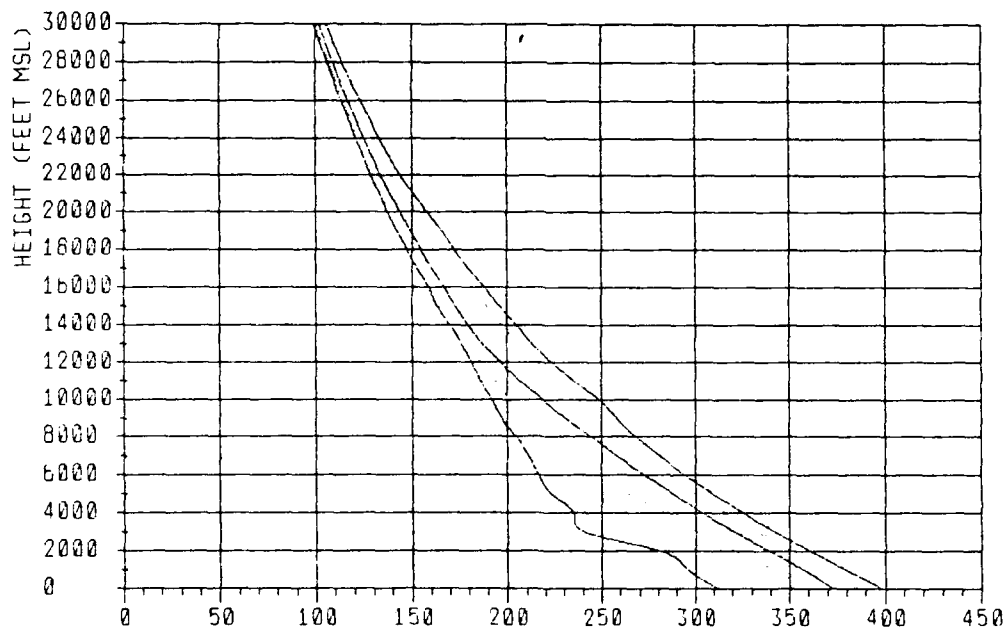
FIGURE B-14-1-D

B-227

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

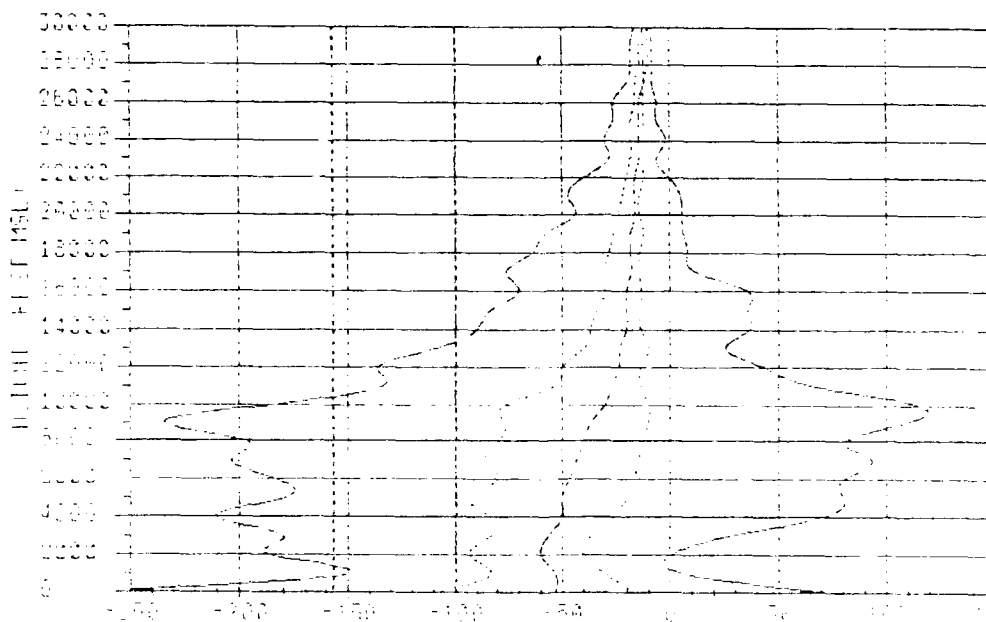
FIGURE B-14-2-A

B-228

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-14-2-B

NO DATA AVAILABLE

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDH PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	95%		10%	50%	90%	95%		SRLR	SUB
0FC-500	250.08	358.00	369.49	390.89	398.89	-302.23	-180.41	-60.41	-12.30	108.37	21.7	33.1	11.0
500-1000	255.90	348.87	359.88	371.00	380.72	-110.81	-68.78	-43.78	-16.88	11.80	0.7	1.2	2.7
1000-1500	252.18	339.78	353.75	364.06	373.58	-122.81	-70.83	-45.83	-18.75	43.78	1.0	2.8	3.7
1500-2000	248.47	331.60	348.69	358.95	365.24	-188.04	-89.58	-54.18	-23.30	23.48	4.2	9.2	3.7
2000-2500	244.78	319.50	337.56	348.06	358.28	-200.79	-102.08	-60.41	-33.33	-10.42	4.7	14.1	1.7
2500-3000	240.50	308.25	326.38	337.80	348.01	-177.08	-87.91	-58.32	-35.41	12.98	4.4	12.1	2.3
3000-3500	237.10	294.72	318.19	327.50	338.89	-157.00	-89.58	-58.25	-29.18	22.91	2.5	10.0	3.2
3500-4000	233.87	285.18	307.08	319.08	327.39	-200.33	-87.50	-52.08	-23.44	33.33	4.8	8.0	4.3
4000-4500	229.38	278.08	298.75	311.19	319.31	-171.25	-83.33	-50.00	-20.03	33.33	3.2	8.2	5.9
4500-5000	225.87	267.37	291.50	304.08	313.00	-238.04	-87.50	-47.81	-16.88	61.87	8.2	13.5	11.4
5000-6000	220.05	251.80	278.75	293.38	302.88	-210.41	-98.35	-45.83	-18.88	80.41	10.4	19.7	12.4
6000-7000	213.90	238.80	261.25	279.19	287.38	-221.18	-93.78	-45.83	-18.75	80.77	10.4	17.7	10.4
7000-8000	208.80	223.80	242.55	265.38	275.08	-284.22	-98.81	-40.10	-18.88	80.98	14.4	17.8	10.2
8000-9000	199.28	213.40	226.20	251.80	262.38	-221.18	-78.88	-33.33	-18.88	78.80	10.7	13.7	11.4
9000-10000	192.77	204.80	213.50	238.80	251.43	-201.01	-58.84	-30.07	-13.41	58.84	8.2	7.9	9.0
10000-11000	187.00	187.70	203.30	228.00	240.18	-180.00	-53.38	-23.30	-13.41	58.34	5.1	8.2	10.4
11000-12000	180.81	180.40	195.60	213.58	228.99	-123.30	-43.38	-23.30	-18.88	30.08	2.7	3.2	8.1
12000-13000	174.78	183.90	188.10	201.90	215.40	-110.02	-38.71	-23.30	-19.82	23.30	2.0	3.4	4.2
13000-14000	168.82	177.10	181.10	191.10	205.77	-88.71	-33.33	-20.05	-18.88	8.84	1.7	2.2	3.5
14000-15000	163.14	171.00	174.80	181.80	198.80	-80.02	-28.89	-20.05	-18.88	20.05	0.7	1.4	3.8
15000-16000	158.10	165.20	168.50	174.80	187.79	-80.02	-28.88	-19.92	-18.88	10.03	0.8	0.8	2.8
16000-17000	153.13	159.80	163.00	167.80	180.81	-58.98	-23.98	-18.04	-18.01	-4.34	0.0	0.3	1.2
17000-18000	147.05	154.20	158.90	160.80	171.18	-42.01	-21.95	-17.86	-18.84	-4.08	0.3	0.0	1.0
18000-19000	140.83	148.40	151.20	154.24	165.10	-38.85	-20.00	-18.01	-13.88	-2.03	0.2	0.7	2.7
19000-20000	134.97	143.30	148.70	148.20	157.70	-32.03	-18.04	-18.01	-15.84	-8.08	0.0	0.2	0.7
20000-21000	130.07	138.50	140.80	143.30	150.80	-27.98	-17.98	-18.01	-13.88	-7.87	0.0	0.0	1.4
21000-22000	125.28	133.90	138.10	138.40	144.40	-25.93	-18.01	-18.84	-13.88	-11.85	0.0	0.2	0.7
22000-23000	120.75	128.60	131.60	133.80	138.40	-22.03	-18.01	-13.88	-13.88	-11.85	0.0	0.0	0.2
23000-24000	116.05	124.70	128.90	129.20	133.20	-21.95	-18.01	-13.88	-12.03	-8.05	0.0	0.0	0.0
24000-25000	111.18	120.80	122.50	124.40	127.60	-20.00	-18.94	-13.88	-11.95	-6.02	0.0	0.2	1.1
25000-26000	107.06	118.50	118.40	120.30	123.10	-20.00	-14.08	-13.88	-11.95	-10.00	0.0	0.0	0.2
26000-27000	103.18	112.70	114.40	116.30	118.60	-18.04	-14.08	-12.03	-11.95	-10.00	0.0	0.0	0.2
27000-28000	99.15	108.40	110.30	112.20	114.10	-18.17	-13.88	-12.03	-11.95	-10.00	0.0	0.0	0.8
28000-29000	95.28	104.80	106.40	108.00	109.57	-18.01	-12.03	-12.03	-10.00	-10.00	0.0	0.0	0.0
29000-30000	91.88	101.30	102.90	104.40	105.80	-15.94	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.0
30000-31000	88.55	98.00	99.60	101.00	102.30	-15.45	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
31000-32000	85.15	94.70	96.20	97.70	98.90	-22.82	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
32000-33000	81.79	91.10	92.70	94.30	95.30	-14.08	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	78.84	87.90	89.30	90.83	91.50	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-35000	76.32	85.70	86.70	87.80	88.30	-20.00	-11.95	-10.00	-10.00	-7.87	0.0	0.0	0.0

1200Z
FIGURE B-14-2-C

B-230

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT. MBL	%FRD	DUCTS THK PERCENTILES			%FRD	SALTS THK PERCENTILES			%FRD	NORMAL THK PERCENTILES			%FRD	SLE THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
5FC-500	24.3	93	289	387	34.3	98	289	387	97.3	1376	6498	34975	13.8	190	389	520
500-1000	0.7	197	295	295	1.2	98	98	591	3.1	98	2608	34286	1.1	98	105	1670
1000-1500	0.5	197	344	492	2.4	98	492	1270	3.4	98	2461	17684	1.2	98	107	1670
1500-2000	2.2	98	394	689	6.8	98	591	1467	2.7	98	3051	27981	0.7	197	146	106
2000-2500	1.9	98	295	591	5.1	98	492	1161	5.8	295	2658	12106	0.7	197	105	105
2500-3000	1.9	197	394	689	3.9	98	689	1201	7.8	1014	2854	10217	1.5	98	144	886
3000-3500	1.2	197	394	689	3.2	98	394	866	7.9	98	1870	20519	1.7	197	197	1870
3500-4000	2.4	207	295	482	3.6	98	492	827	6.3	98	1723	21031	1.7	265	104	104
4000-4500	1.5	295	443	787	3.6	98	492	728	4.9	98	1181	8622	1.9	166	391	817
4500-5000	5.5	138	295	455	10.5	98	295	886	11.3	748	2756	7026	6.2	98	144	145
5000-6000	3.9	167	295	620	10.4	98	295	787	20.3	98	1411	29758	6.1	197	104	1015
6000-7000	3.9	98	344	591	8.2	98	394	787	12.8	98	2116	28538	7.2	197	104	1015
7000-8000	7.0	197	295	394	11.4	98	295	787	18.6	96	2062	27701	9.0	98	407	106
8000-9000	8.8	167	295	492	13.2	98	295	492	21.2	98	1427	26213	19.8	98	591	104
9000-10000	7.3	98	197	394	11.5	98	197	492	16.9	98	2854	20811	12.7	98	492	104
10000-11000	7.6	98	197	394	9.6	98	197	591	25.2	98	3445	24973	10.6	98	104	1015
11000-12000	2.7	98	197	374	6.7	98	197	492	17.3	98	1917	23587	7.9	197	104	965
12000-13000	2.7	98	197	394	4.9	98	197	364	11.3	98	2297	21878	8.6	98	101	101
13000-14000	2.0	98	197	295	4.5	98	197	394	12.1	98	4692	21598	5.9	98	104	1204
14000-15000	1.0	98	148	197	1.7	96	98	197	9.5	108	5515	21574	6.0	98	492	101
15000-16000	1.0	98	98	295	1.2	98	98	295	8.0	157	1625	17600	7.5	98	104	0
16000-17000	0.2	131	131	131	1.5	98	164	492	7.5	846	14600	18537	5.2	180	492	0.3
17000-18000	1.5	164	164	328	0.8	164	164	164	5.3	476	6480	17668	3.3	164	492	1.3
18000-19000	1.0	164	164	164	1.3	164	164	164	7.0	492	16076	16755	5.0	164	328	0.3
19000-20000	0.3	164	164	164	0.0				3.3	689	14928	15617	2.0	164	686	0.4

1200Z

FIGURE B-14-2-D

B-231

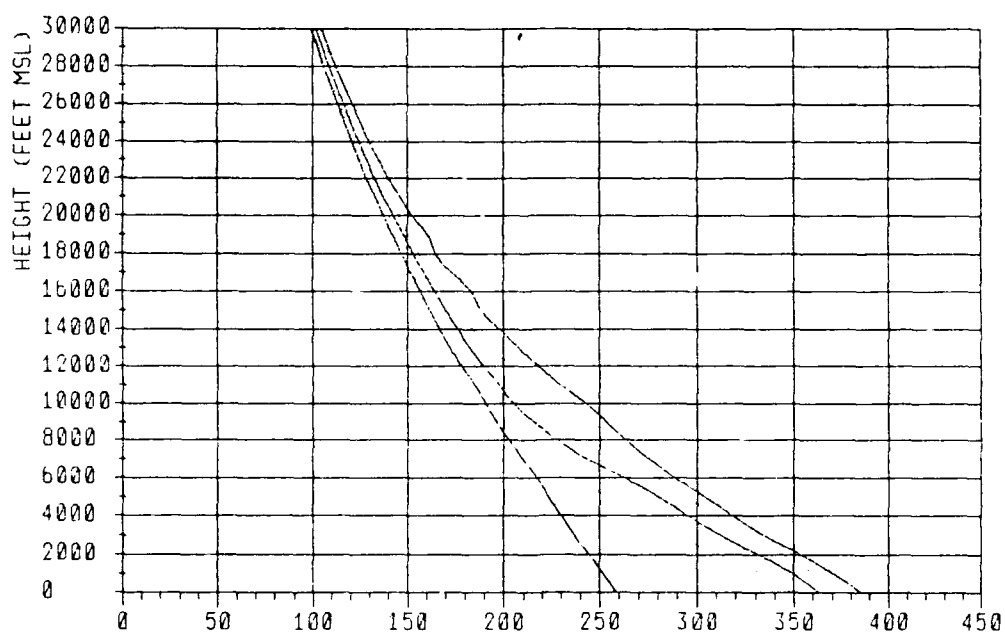
SAN ANDRES ISLAND

DRY SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-14-3-A

B-232

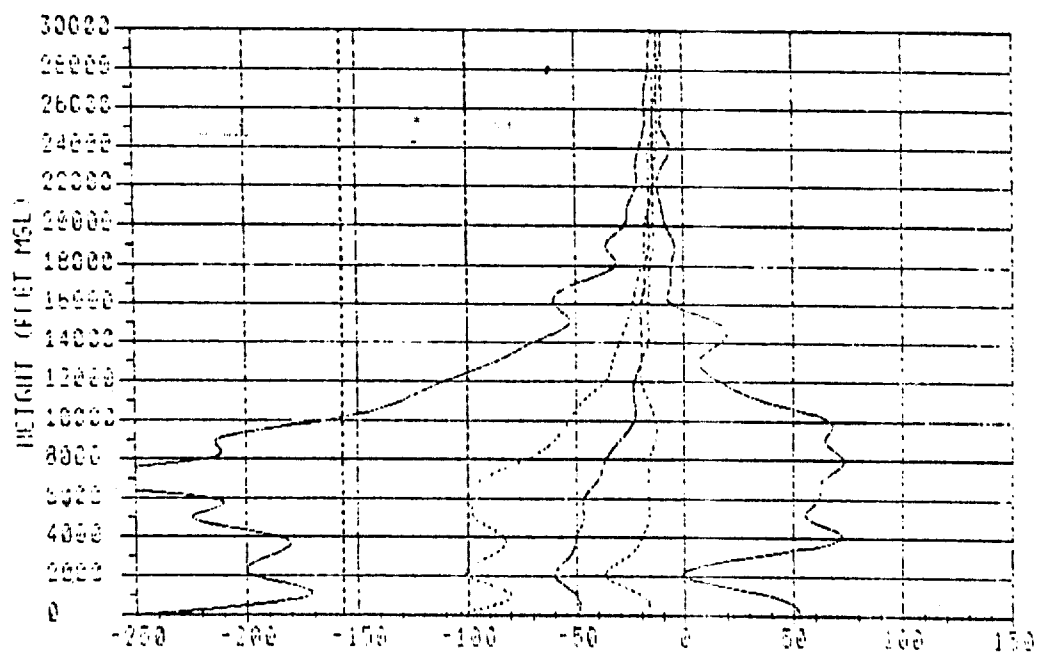
SAN ANDRES ISLAND

DRY SEASON

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-14-3-B

B-233

NO DATA AVAILABLE

0000Z

HGT FT MSL	N PERCENTILES					DNDH PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	SRLR	SUB
5FC-500	326.73	364.91	379.19	389.37	400.64	-323.45	-166.66	-60.41	-6.25	43.54	24.3	34.3	15.8
500-1000	257.03	351.75	368.66	380.38	394.26	-125.92	-75.00	-52.08	-22.91	23.22	1.5	3.2	4.1
1000-1500	253.35	346.50	361.56	372.69	382.46	-128.00	-75.00	-52.08	-26.00	23.63	0.7	3.6	3.9
1500-2000	249.68	338.31	354.00	364.69	373.06	-156.25	-97.50	-58.25	-31.25	5.10	2.4	6.5	2.2
2000-2500	245.90	327.77	344.88	355.37	362.78	-200.00	-97.91	-60.41	-39.58	-16.66	3.2	11.7	1.5
2500-3000	242.17	316.01	334.25	345.24	353.38	-170.83	-87.50	-58.33	-39.58	0.00	2.9	9.8	1.9
3000-3500	238.48	305.28	324.13	335.19	342.25	-172.00	-83.33	-56.25	-37.50	7.09	1.9	7.0	2.2
3500-4000	235.52	295.37	315.50	328.56	334.82	-180.09	-83.33	-54.16	-33.33	33.33	3.6	6.3	3.4
4000-4500	232.31	287.25	307.19	318.69	326.70	-188.16	-83.33	-50.00	-25.00	70.83	2.7	6.1	7.1
4500-5000	228.91	278.75	300.19	311.19	318.69	-216.66	-89.58	-50.00	-22.91	87.11	6.5	13.0	10.3
5000-6000	222.18	263.00	286.66	299.87	308.04	-175.00	-89.58	-47.91	-18.75	57.64	6.5	16.2	13.6
6000-7000	215.33	245.00	271.69	284.59	292.28	-179.50	-79.95	-43.75	-16.66	63.33	5.3	11.1	12.1
7000-8000	210.20	229.00	257.98	272.25	280.04	-208.36	-85.41	-43.36	-16.66	87.41	8.2	14.3	12.3
8000-9000	203.10	217.30	243.30	259.09	267.18	-203.38	-80.08	-39.58	-13.29	70.05	10.2	16.8	13.2
9000-10000	195.40	206.90	228.50	246.70	255.71	-197.02	-73.43	-33.33	-6.77	126.69	8.9	13.4	15.6
10000-11000	190.30	199.00	216.70	235.20	246.27	-179.85	-73.30	-29.85	-10.03	69.86	7.8	11.0	16.7
11000-12000	184.50	191.90	204.60	223.20	232.03	-140.02	-56.64	-26.56	-13.28	87.60	3.4	7.4	12.6
12000-13000	179.50	185.00	194.40	213.00	220.45	-130.07	-50.00	-23.44	-13.28	43.36	2.7	5.9	11.8
13000-14000	172.40	177.90	185.20	203.40	210.70	-112.17	-39.97	-23.30	-13.28	23.39	2.0	4.7	10.1
14000-15000	166.62	171.70	177.20	194.30	201.56	-83.33	-33.33	-20.05	-13.41	46.74	1.0	2.7	9.0
15000-16000	161.20	165.60	170.70	188.60	193.39	-80.06	-33.33	-20.05	-13.41	30.07	1.0	1.2	9.5
16000-17000	156.00	160.20	164.70	178.40	185.50	-70.00	-30.00	-19.92	-13.98	27.97	0.2	1.5	8.7
17000-18000	150.39	154.67	158.40	172.10	177.21	-74.20	-28.04	-18.04	-13.98	6.21	1.5	0.8	5.6
18000-19000	145.27	148.60	152.60	163.90	170.20	-63.98	-28.01	-17.98	-12.03	11.95	1.0	1.3	7.0
19000-20000	140.20	143.50	146.70	158.30	161.75	-47.99	-24.06	-16.01	-13.98	6.02	0.3	0.0	3.3
20000-21000	136.00	139.70	141.70	150.00	155.10	-46.04	-23.9	-16.01	-13.98	7.97	0.0	0.5	3.6
21000-22000	132.00	134.10	136.90	143.50	148.60	-42.03	-22.03	-16.01	-12.03	3.98	0.0	0.0	4.4
22000-23000	127.61	129.60	132.20	137.60	142.30	-37.96	-20.00	-14.06	-12.03	-1.97	0.0	0.0	2.6
23000-24000	123.20	124.60	127.50	132.30	136.30	-31.95	-19.04	-13.98	-11.95	-1.95	0.0	0.0	3.1
24000-25000	119.30	120.50	122.60	127.30	130.78	-0.00	-17.96	-13.98	-11.95	0.00	0.0	0.0	3.1
25000-26000	115.25	116.50	118.70	122.40	125.73	-28.96	-17.96	-13.98	-1.95	-6.02	0.0	0.0	1.1
26000-27000	111.50	112.60	114.70	117.40	120.70	-22.03	-16.01	-12.03	-11.95	-6.52	0.0	0.0	0.8
27000-28000	107.40	108.41	110.60	113.50	115.90	-18.04	-14.06	-12.03	-11.95	-7.97	0.0	0.0	0.5
28000-29000	103.87	104.70	106.50	108.50	111.00	-20.00	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.3
29000-30000	100.30	101.30	103.00	104.70	106.70	-18.01	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.0
30000-31000	96.84	98.00	99.60	101.20	102.70	-16.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.3
31000-32000	93.60	94.60	96.20	97.80	99.22	-28.31	-12.03	-10.00	-10.00	-6.02	0.0	0.0	0.3
32000-33000	90.11	91.10	92.70	94.30	95.50	-14.05	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	87.10	87.90	89.30	90.60	91.60	-21.95	-12.3	-10.00	-10.00	-7.97	0.3	0.0	0.0
34000-35000	84.73	85.70	86.70	87.60	88.30	-23.98	-12.03	-10.00	-8.09	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-14-3-C
B-234

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT. MFL	DUCTS THK. PERCENTILES				SLES THK. PERCENTILES				NORMAL THK. PERCENTILES				SUB THK. PERCENTILES			
	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%	%FRQ	10%	50%	90%
9FC-500	21.7	98	289	387	33.1	98	289	387	98.1	1280	5819	14975	11.1	100	187	68.1
500-1000	0.3	394	394	394	0.5	98	591	787	1.7	98	1711	18197	11.0	98	98	68.9
1000-1500	1.0	98	443	591	2.0	98	492	1061	2.8	98	1917	17751	2.7	98	105	67.1
1500-2000	3.7	157	344	591	7.9	98	591	984	5.4	177	1854	11459	1.5	107	105	104
2000-2500	3.3	197	492	778	7.9	98	246	1004	7.9	98	1953	1971	1.1	98	104	1.50
2500-3000	1.8	118	295	787	6.5	98	492	974	7.8	531	1362	14272	1.8	115	689	12.5
3000-3500	2.3	148	344	787	4.5	98	394	1043	6.1	184	1711	11756	1.1	105	144	85.6
3500-4000	3.0	197	295	600	3.8	98	98	925	6.0	177	1870	16260	3.0	105	104	119.1
4000-4500	1.5	98	394	492	5.1	98	394	689	5.0	98	1808	10791	3.1	107	689	88.6
4500-5000	5.9	197	394	630	9.7	98	295	787	11.5	98	1412	10250	7.1	107	104	101.4
5000-6000	6.5	197	295	591	13.9	98	394	689	18.5	98	1264	19857	7.8	187	104	111.1
6000-7000	8.7	98	295	551	12.5	98	295	689	19.0	98	4971	18971	6.7	98	51	11.6
7000-8000	12.2	98	295	492	14.4	98	295	650	20.2	98	4921	17790	7.4	98	104	111.1
8000-9000	8.4	98	295	394	13.1	98	197	591	20.8	98	5817	16904	7.4	105	501	111.1
9000-10000	4.7	187	295	492	5.7	98	197	492	11.6	217	15230	15919	5.2	99	492	89.6
10000-11000	4.9	98	197	394	7.9	98	197	492	15.5	98	12736	15034	7.4	98	541	15.5
11000-12000	2.7	98	197	394	4.4	98	197	492	9.6	98	16864	17852	7.2	98	104	147.6
12000-13000	1.7	98	197	295	7.2	98	197	492	5.5	98	6752	12701	7.4	98	104	14.6
13000-14000	1.5	98	98	295	2.0	98	197	453	5.2	650	6480	11687	2.4	98	104	11.5
14000-15000	0.7	98	148	197	1.2	98	197	394	3.9	138	10014	10850	2.9	187	728	16.9
15000-16000	0.5	98	98	197	0.7	98	197	295	2.9	394	19128	19817	1.2	98	104	95.1
16000-17000	0.0				0.1	164	246	728	1.5	164	18209	18971	0.7	131	410	51.1
17000-18000	0.3	164	164	164	0.0				1.0	7218	17537	17881	0.9	164	328	164.0
18000-19000	0.2	164	164	164	0.7	164	164	164	3.1	1312	15912	16404	2.4	164	164	15.8
19000-20000	0.0				0.2	164	164	164	0.5	164	15256	15420	0.7	164	728	111.2

1200Z

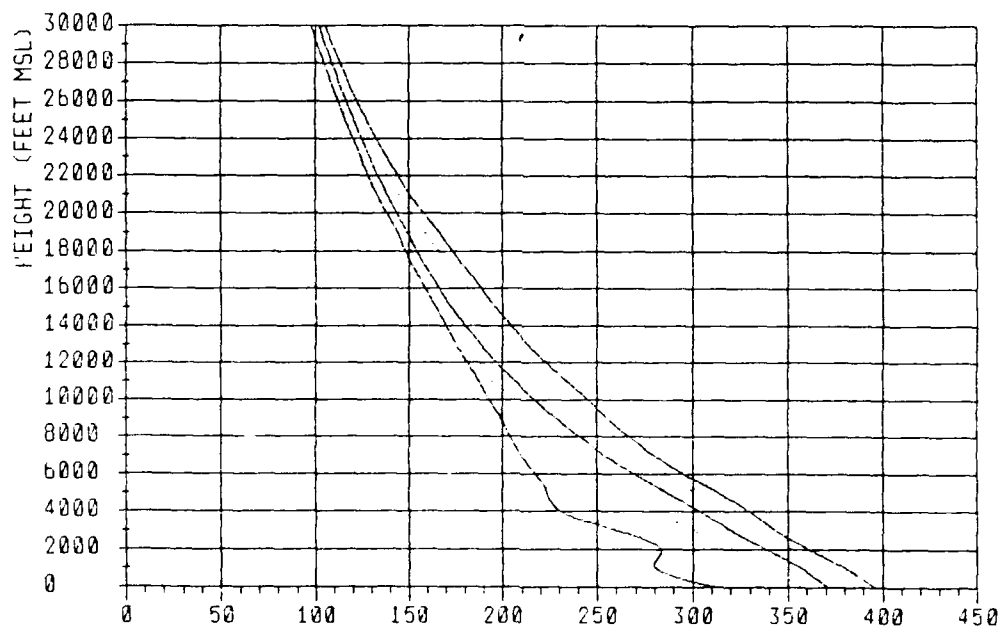
FIGURE B-14-3-D

B-235

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-14-4-A

B-236

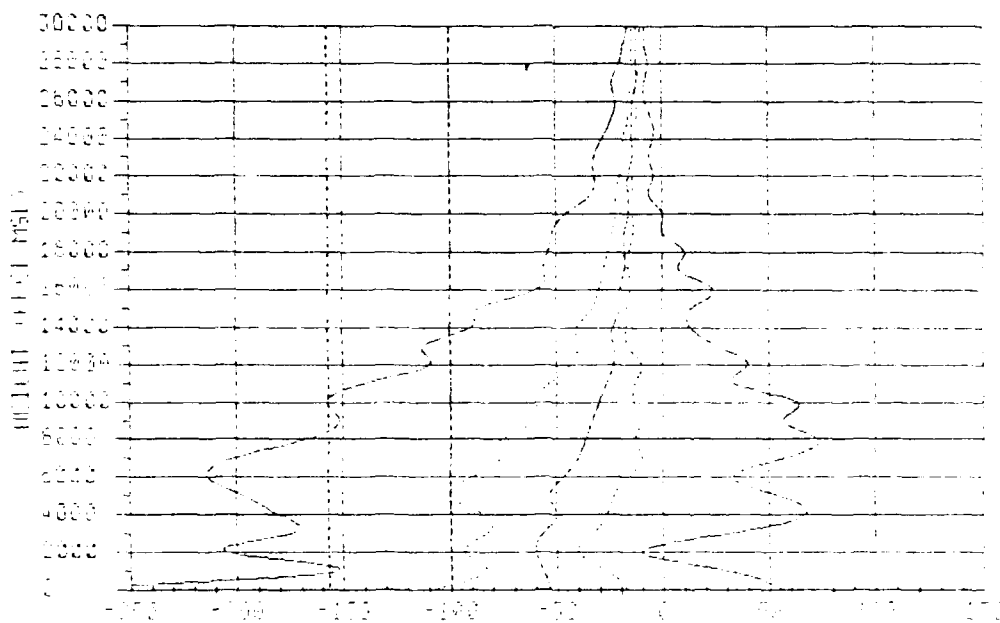
SAN ANDRES ISLAND

DRY-WET TRANSITION

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-14-4-B

B-237

SAN ANDRES ISLAND

DRY-WET TRANSITION

NO DATA AVAILABLE

0000Z

HOT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	95%	1%	10%	50%	90%	95%	DUCT	SRLR	SUB
5FC-500	280.25	382.58	377.75	390.56	400.74	-383.67	-178.57	-60.41	-8.33	104.90	24.6	28.9	18.4
500-1000	255.80	353.45	387.69	380.58	381.58	-134.25	-77.08	-47.91	-18.66	22.91	0.3	3.3	4.9
1000-1500	251.31	346.56	381.06	372.38	382.97	-123.83	-81.25	-52.08	-20.63	60.41	1.0	2.6	4.9
1500-2000	247.35	338.19	353.25	364.00	373.38	-177.08	-85.41	-58.33	-33.33	13.42	2.8	5.9	2.0
2000-2500	243.55	328.37	343.75	354.80	364.27	-202.78	-89.58	-60.41	-39.58	-18.66	4.8	7.7	0.8
2500-3000	239.58	318.97	333.03	344.75	354.13	-200.00	-93.75	-58.33	-39.58	-2.08	4.3	9.2	2.0
3000-3500	235.98	303.89	323.31	335.00	344.48	-170.82	-83.33	-58.25	-33.33	24.79	2.8	7.1	3.6
3500-4000	232.59	293.17	315.00	326.75	337.58	-177.94	-83.33	-54.16	-29.16	33.33	3.1	7.4	4.3
4000-4500	228.19	285.05	306.75	318.75	331.43	-171.71	-83.33	-50.00	-27.08	66.66	2.3	7.9	5.6
4500-5000	223.55	278.61	299.08	311.58	325.92	-185.25	-89.58	-50.00	-23.30	83.33	5.4	14.0	10.7
5000-6000	218.15	260.19	284.68	300.19	312.25	-188.97	-85.83	-50.00	-23.30	43.50	7.4	17.8	10.2
6000-7000	211.68	240.80	268.08	284.87	294.05	-222.91	-88.59	-45.83	-18.66	35.00	7.7	14.8	11.5
7000-8000	205.88	228.20	253.80	270.75	279.75	-199.27	-78.69	-39.97	-10.42	53.38	7.4	13.0	13.8
8000-9000	200.30	216.40	239.20	257.80	265.88	-180.02	-73.30	-36.71	-10.42	78.68	5.4	13.8	14.5
9000-10000	194.04	207.30	225.80	245.20	253.48	-188.35	-60.02	-33.33	-10.03	48.35	4.8	6.9	11.7
10000-11000	187.81	199.70	214.20	234.50	243.48	-180.02	-59.89	-28.89	-13.28	40.10	4.8	7.1	13.5
11000-12000	181.19	192.16	204.00	222.74	231.40	-133.33	-50.00	-23.44	-13.28	39.97	3.8	5.9	10.5
12000-13000	178.20	185.30	194.70	212.90	220.20	-113.41	-40.10	-23.30	-9.90	39.97	1.8	4.1	12.1
13000-14000	170.38	178.20	188.40	204.29	211.11	-103.27	-39.97	-23.30	-18.66	20.05	2.1	3.6	8.7
14000-15000	164.60	172.00	177.70	195.80	201.90	-93.38	-36.71	-23.30	-18.66	10.03	1.0	2.6	4.9
15000-16000	159.90	168.00	170.85	188.80	193.90	-73.73	-30.07	-20.08	-18.66	16.66	1.3	1.8	6.2
16000-17000	154.75	160.30	164.80	179.78	188.70	-80.00	-27.86	-20.00	-15.94	19.04	0.5	0.8	5.7
17000-18000	150.20	154.80	158.40	171.40	178.46	-58.80	-27.86	-18.04	-15.94	9.32	0.0	0.8	4.1
18000-19000	144.81	148.70	152.50	163.50	170.59	-80.00	-25.83	-17.86	-13.98	6.02	0.0	0.3	3.3
19000-20000	140.05	143.70	146.70	155.64	162.42	-40.00	-23.98	-18.01	-14.08	-1.48	0.3	0.0	2.1
20000-21000	135.80	138.80	141.70	148.88	155.74	-40.00	-22.03	-18.01	-13.98	4.77	0.3	0.0	2.6
21000-22000	122.43	134.20	138.80	142.74	148.64	-32.03	-20.00	-18.01	-13.98	-3.88	0.0	0.3	1.9
22000-23000	118.44	128.70	132.30	137.01	142.20	-33.98	-20.00	-14.08	-13.98	-5.94	0.0	0.0	1.3
23000-24000	114.41	124.80	127.40	131.40	136.00	-28.04	-18.04	-13.98	-12.03	-6.02	0.3	0.0	0.3
24000-25000	109.97	120.50	122.80	128.40	129.70	-28.14	-18.01	-13.98	-11.95	-2.03	0.0	0.8	1.8
25000-26000	108.38	116.40	118.80	121.70	124.80	-23.98	-18.01	-13.98	-11.95	-7.52	0.0	0.0	0.8
26000-27000	102.84	112.50	114.80	117.30	120.03	-22.03	-18.01	-12.03	-11.95	-8.02	0.0	0.0	0.3
27000-28000	99.30	108.30	110.50	112.90	115.38	-20.00	-14.08	-12.03	-11.95	-8.43	0.0	0.0	0.8
28000-29000	95.80	104.70	108.48	108.40	110.54	-18.04	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
29000-30000	92.77	101.20	102.80	104.70	108.34	-18.01	-13.98	-11.95	-10.00	-8.05	0.0	0.0	0.3
30000-31000	88.76	97.80	99.50	101.10	102.50	-18.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.0
31000-32000	88.58	94.50	98.10	97.70	98.92	-24.08	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.8
32000-33000	83.51	90.90	92.50	94.10	95.20	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.3
33000-34000	80.88	87.80	89.20	90.50	91.30	-20.00	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	78.87	85.69	88.80	87.50	88.10	-22.03	-11.95	-10.00	-8.05	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-14-4-C

B-238

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	XFRQ	DUCTS THK PERCENTILES			XFRQ	SRLRB THK PERCENTILES			XFRQ	NORMAL THK PERCENTILES			XFRQ	SUP THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	24.8	190	289	387	28.9	98	289	387	95.9	1476	6004	14975	16.4	98	289	886
500-1000	0.0				0.0	886	1230	1575	3.6	98	1672	22416	1.8	98	197	856
1000-1500	0.8	197	591	689	0.8	594	591	787	4.9	98	3248	14188	2.6	98	295	886
1500-2000	2.0	197	394	787	4.6	98	541	1280	4.9	98	2016	11162	0.0	295	295	495
2000-2500	3.6	98	344	787	4.1	98	541	1201	4.1	650	3593	21805	0.8	394	591	886
2500-3000	1.8	197	591	689	4.6	98	591	1299	5.4	709	3542	32396	1.8	98	295	886
3000-3500	1.8	98	295	984	2.6	98	394	974	6.4	650	2658	31904	2.3	98	886	1772
3500-4000	2.3	197	295	591	4.6	98	295	994	4.8	98	984	31235	2.6	197	640	1070
4000-4500	1.0	295	541	689	5.1	98	344	591	6.4	98	2461	31067	2.8	157	492	591
4500-5000	4.6	98	246	433	11.2	98	295	1083	12.0	98	3130	30349	5.9	108	295	709
5000-6000	5.4	98	394	689	10.2	98	394	984	16.8	98	2461	29758	6.6	98	394	1595
6000-7000	6.1	98	394	541	11.5	98	295	689	16.8	98	1772	28675	8.4	98	394	984
7000-8000	5.9	197	295	551	9.4	98	394	787	17.9	98	2165	27790	9.4	98	640	1250
8000-9000	4.1	98	197	522	9.4	98	295	591	20.2	98	2067	26815	10.2	98	394	1476
9000-10000	3.8	157	295	394	4.3	98	295	472	11.7	98	2412	25811	7.7	98	492	1083
10000-11000	4.3	98	295	512	6.4	98	295	522	17.6	98	2756	24955	9.2	98	492	1112
11000-12000	2.8	98	197	295	4.9	98	197	394	10.7	98	13042	23852	7.2	98	689	1742
12000-13000	1.8	98	197	295	4.1	98	295	492	9.7	207	16782	22760	7.4	98	689	1152
13000-14000	1.8	98	98	197	2.6	98	295	394	10.5	98	12484	21785	3.6	98	197	1260
14000-15000	1.0	98	148	295	2.3	98	197	295	5.9	98	2100	20703	3.0	98	98	1083
15000-16000	1.3	98	98	197	1.5	98	197	197	5.4	935	19325	19787	4.9	98	410	1568
16000-17000	0.5	164	164	164	0.5	164	164	164	5.4	1010	18045	18806	3.0	164	229	807
17000-18000	0.0				0.8	164	164	328	2.8	230	17215	17846	3.0	230	492	850
18000-19000	0.0				0.0				3.6	1066	16240	16897	1.5	164	328	656
19000-20000	0.3	164	164	164	0.0				1.5	820	2297	15584	1.5	164	492	656

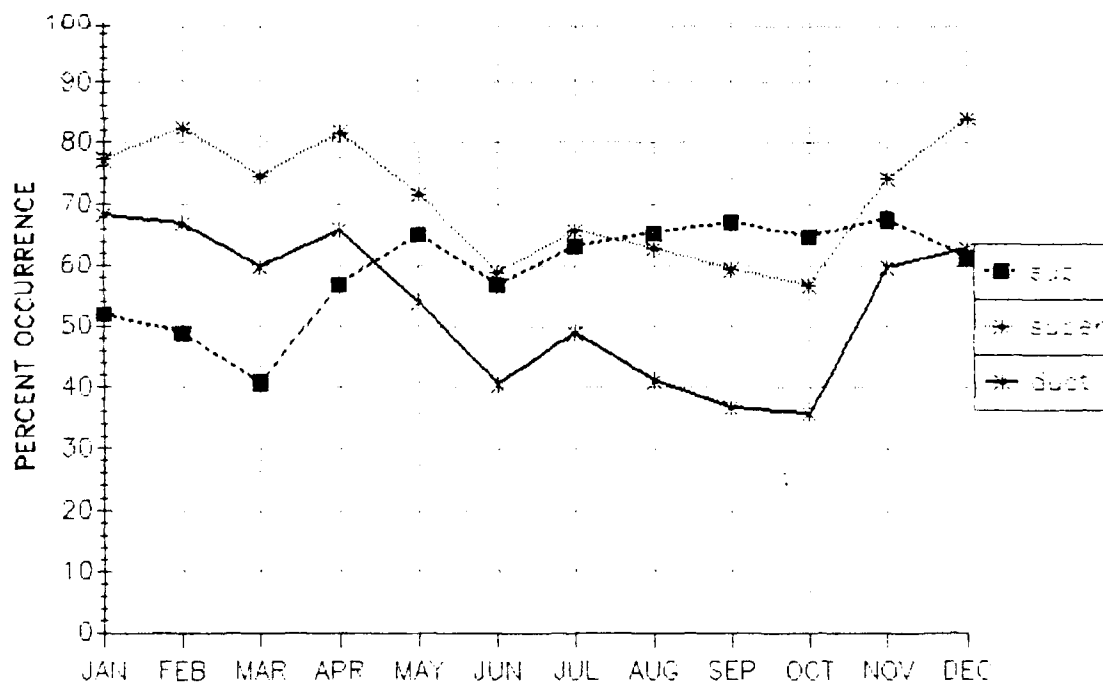
1200Z

FIGURE B-14-4-D

AP PERCENT OCCURRENCE FREQUENCY

NO DATA AVAILABLE

0000Z



1200Z

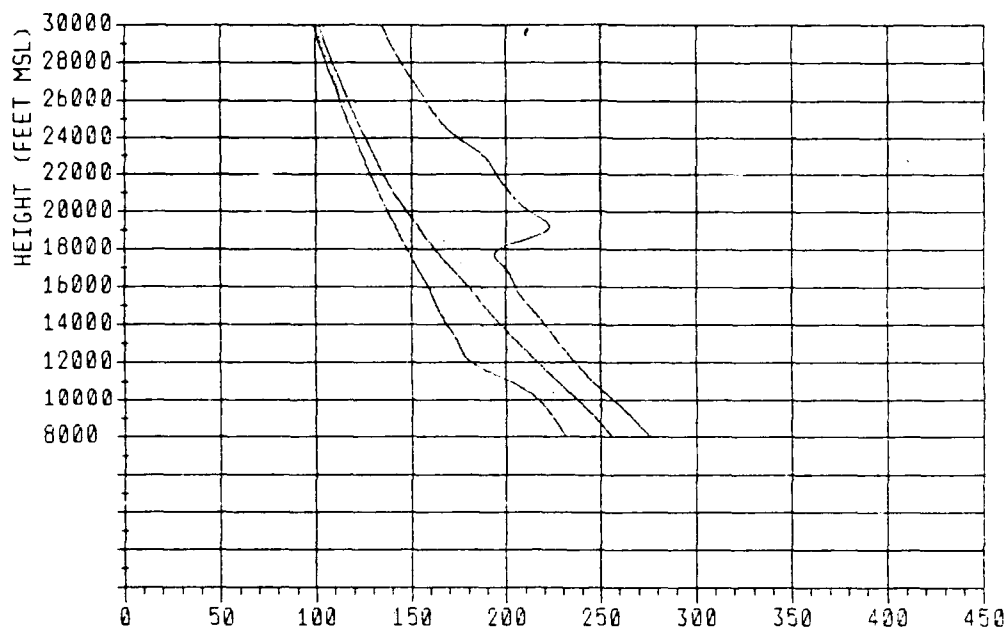
FIGURE B-14-5

B-240

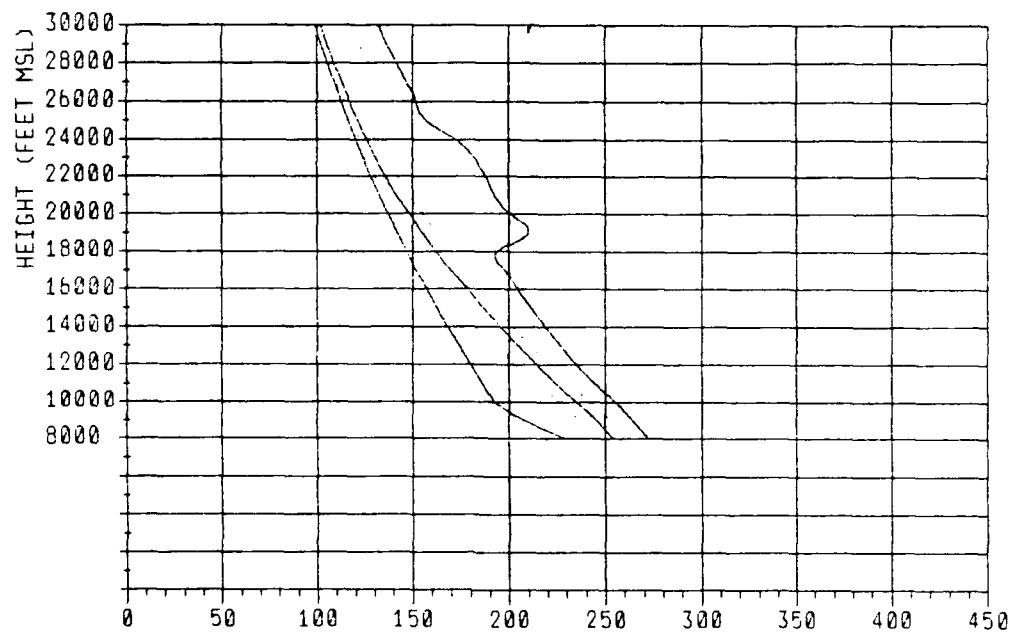
BOGOTA

WET SEASON

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

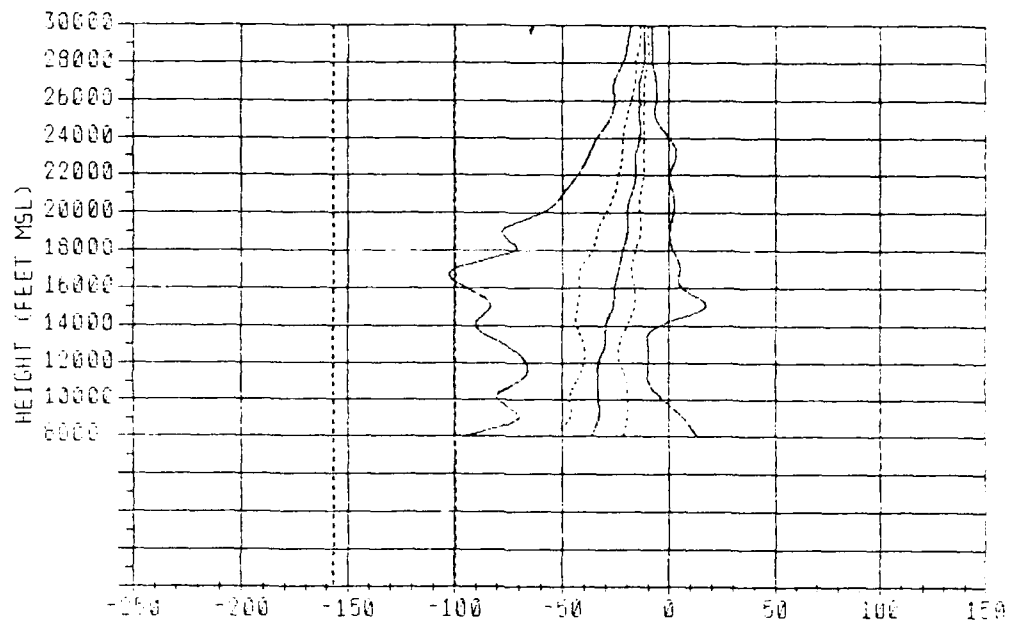
FIGURE B-15-1-A

B-241

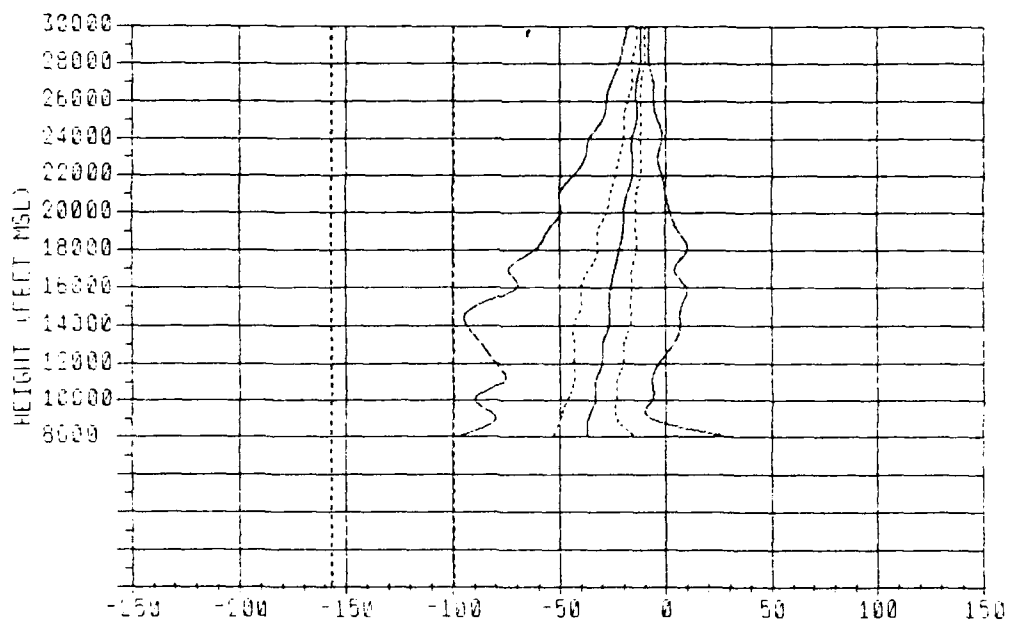
BOGOTA

WET SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-15-1-B

B-242

BOGOTA

WET SEASON

HGT FT MSL	1	1%	N PERCENTILES				1	1%	DNDH PERCENTILES				1	PERCENT OCCURRENCE			1
			10%	50%	90%	95%			10%	50%	90%	95%		DUCT	SALL	SUB	
SFC-9000	1	187.30	203.76	284.80	284.00	276.88	1	-101.31	-53.38	-33.33	-22.13	10.42	1	1.2	2.1	2.7	1
9000-10000	1	180.30	198.20	244.10	252.80	264.23	1	-73.43	-48.61	-33.33	-20.08	10.03	1	0.4	0.2	2.9	1
10000-11000	1	183.80	189.20	233.80	242.40	254.15	1	-78.88	-48.61	-33.33	-19.82	-3.28	1	0.2	0.8	1.0	1
11000-12000	1	178.30	182.40	223.30	231.30	243.28	1	-86.66	-43.38	-33.33	-20.05	-10.03	1	0.6	0.8	0.6	1
12000-13000	1	170.00	178.80	213.10	220.20	234.30	1	-73.33	-39.97	-30.07	-20.08	-10.03	1	0.2	1.4	0.6	1
13000-14000	1	163.40	168.40	202.80	210.40	228.10	1	-80.08	-39.97	-28.88	-19.82	-8.88	1	0.6	1.6	1.0	1
14000-18000	1	187.80	182.80	183.20	200.30	217.82	1	-83.33	-39.97	-28.88	-19.82	-3.28	1	1.0	1.6	1.4	1
18000-18000	1	181.80	187.10	184.40	181.88	208.80	1	-88.87	-39.97	-28.88	-18.88	8.80	1	0.6	2.1	2.9	1
18000-17000	1	148.40	181.88	178.00	183.80	202.87	1	-83.82	-40.00	-24.08	-18.88	8.02	1	1.4	2.9	3.7	1
17000-18000	1	141.10	148.80	188.80	178.30	198.38	1	-81.88	-38.01	-22.03	-18.01	8.02	1	0.4	2.1	3.5	1
18000-19000	1	138.30	140.41	188.10	187.80	221.08	1	-78.04	-33.88	-21.88	-14.08	2.88	1	1.6	2.1	3.8	1
19000-20000	1	130.80	134.80	180.00	189.20	217.88	1	-88.84	-31.88	-20.00	-13.88	8.02	1	0.2	0.6	3.2	1
20000-21000	1	128.80	128.80	143.88	182.00	208.80	1	-88.00	-28.04	-17.88	-13.88	-1.88	1	0.2	0.2	2.8	1
21000-22000	1	121.40	128.30	137.80	145.40	200.01	1	-42.02	-24.08	-18.01	-13.88	2.03	1	0.0	0.0	2.8	1
22000-23000	1	117.10	120.80	132.80	139.30	193.21	1	-42.07	-22.03	-18.01	-11.88	2.03	1	0.2	0.0	4.8	1
23000-24000	1	112.30	118.40	127.80	133.40	183.08	1	-38.01	-21.88	-14.08	-11.88	0.00	1	0.0	0.4	3.2	1
24000-28000	1	108.20	111.82	122.80	127.80	188.88	1	-30.00	-20.00	-13.88	-11.88	-3.88	1	0.0	0.2	2.8	1
28000-28000	1	104.40	107.70	118.80	122.50	181.04	1	-28.88	-18.04	-13.88	-11.88	-8.14	1	0.0	0.0	0.8	1
28000-27000	1	100.70	103.88	114.80	117.80	184.02	1	-24.80	-18.01	-13.88	-11.88	-8.02	1	0.0	0.2	1.1	1
27000-28000	1	98.80	100.20	110.20	113.20	148.78	1	-23.88	-18.01	-12.03	-10.00	-7.97	1	0.0	0.2	0.4	1
28000-29000	1	93.20	98.23	108.10	108.80	141.01	1	-21.88	-14.08	-12.03	-10.00	-7.97	1	0.0	0.0	0.4	1
29000-30000	1	88.80	92.83	102.48	104.80	138.88	1	-17.88	-13.88	-11.88	-10.00	-7.97	1	0.0	0.0	0.0	1
30000-31000	1	88.70	88.80	98.00	101.00	131.43	1	-17.88	-12.03	-11.88	-10.00	-7.97	1	0.0	0.0	0.0	1
31000-32000	1	83.70	88.80	98.80	97.80	128.88	1	-20.00	-12.03	-10.00	-10.00	-7.97	1	0.0	0.0	0.0	1
32000-33000	1	80.30	83.30	92.10	94.00	122.00	1	-14.08	-12.03	-10.00	-10.00	-7.97	1	0.0	0.0	0.0	1
33000-34000	1	77.40	80.13	88.70	90.40	117.88	1	-19.74	-12.03	-10.00	-8.08	-7.97	1	0.0	0.0	0.0	1
34000-38000	1	78.80	77.88	88.20	87.30	114.78	1	-22.02	-12.03	-10.00	-7.97	-7.97	1	0.0	0.0	0.0	1

0000Z

HGT FT MSL	1	1%	N PERCENTILES				1	1%	DNDH PERCENTILES				1	PERCENT OCCURRENCE			1
			10%	50%	90%	95%			10%	50%	90%	95%		DUCT	SALL	SUB	
SFC-9000	1	201.10	244.80	233.80	280.88	271.18	1	-88.21	-52.08	-38.32	-13.88	33.33	1	0.9	1.9	7.8	1
9000-10000	1	183.80	232.80	243.20	280.70	280.83	1	-80.00	-48.74	-38.88	-23.30	-8.84	1	1.2	0.4	1.8	1
10000-11000	1	187.10	221.10	232.30	240.00	251.48	1	-88.81	-48.61	-33.33	-23.30	-8.80	1	0.8	1.7	1.2	1
11000-12000	1	179.88	207.80	221.80	228.10	241.30	1	-78.88	-43.38	-33.33	-23.30	-8.84	1	0.8	1.8	1.3	1
12000-13000	1	173.30	188.28	211.80	218.80	232.00	1	-80.08	-43.38	-30.07	-20.08	-3.28	1	0.8	1.4	2.1	1
13000-14000	1	168.80	188.30	202.00	208.80	224.12	1	-88.81	-43.38	-28.88	-19.82	8.84	1	1.3	3.0	3.2	1
14000-18000	1	180.31	178.10	182.80	189.30	218.88	1	-88.48	-43.23	-28.88	-18.88	8.84	1	1.0	2.1	4.0	1
18000-18000	1	184.81	188.20	182.70	180.80	207.88	1	-83.33	-39.97	-28.88	-18.88	8.84	1	1.8	2.1	3.8	1
18000-17000	1	148.10	181.70	178.80	183.20	187.80	1	-70.00	-37.88	-24.08	-18.01	10.00	1	1.0	1.3	4.0	1
17000-18000	1	143.88	188.00	188.80	174.70	188.80	1	-84.77	-33.88	-23.88	-18.84	8.84	1	0.7	0.8	3.8	1
18000-19000	1	137.80	148.80	188.10	188.80	180.40	1	-82.03	-32.03	-21.88	-13.88	8.08	1	0.8	1.3	5.1	1
19000-20000	1	132.88	143.10	182.00	188.80	172.08	1	-82.03	-30.00	-20.00	-13.88	3.88	1	0.1	0.2	3.3	1
20000-21000	1	127.80	138.20	145.80	182.30	184.71	1	-80.00	-27.88	-18.04	-13.88	2.03	1	0.2	0.2	3.3	1
21000-22000	1	123.30	133.80	138.80	148.80	188.82	1	-48.04	-28.01	-17.88	-12.03	0.00	1	0.1	0.1	2.8	1
22000-23000	1	118.80	128.00	134.10	139.80	181.73	1	-40.00	-23.88	-18.01	-12.03	-2.03	1	0.1	0.0	2.0	1
23000-24000	1	114.08	124.10	128.80	133.80	144.20	1	-38.73	-21.88	-18.01	-12.03	-3.88	1	0.1	0.1	1.8	1
24000-28000	1	108.80	118.80	123.40	127.80	138.87	1	-32.03	-20.00	-14.08	-11.88	-2.03	1	0.2	0.2	2.3	1
28000-28000	1	108.80	118.80	118.00	122.70	137.18	1	-28.04	-18.04	-13.88	-11.88	-8.02	1	0.0	0.1	0.7	1
28000-27000	1	102.00	112.10	114.80	118.00	131.70	1	-28.01	-17.88	-13.88	-11.88	-8.02	1	0.0	0.0	0.7	1
27000-28000	1	98.00	107.80	110.80	113.30	128.00	1	-22.03	-18.01	-12.03	-10.00	-7.97	1	0.0	0.0	0.3	1
28000-29000	1	94.30	104.20	108.30	108.80	118.84	1	-20.00	-14.08	-12.03	-10.00	-7.97	1	0.0	0.0	0.2	1
29000-30000	1	80.80	100.70	102.70	104.70	113.21	1	-17.88	-13.88	-11.88	-10.00	-7.97	1	0.0	0.0	0.2	1
30000-31000	1	87.82	97.40	98.20	101.00	108.12	1	-17.88	-12.03	-11.88	-10.00	-7.97	1	0.0	0.0	0.0	1
31000-32000	1	84.80	84.10	98.80	97.88	108.17	1	-20.00	-12.03	-10.00	-10.00	-7.97	1	0.0	0.0	0.2	1
32000-33000	1	81.20	80.80	92.30	94.00	101.14	1	-13.88	-12.03	-10.00	-10.00	-7.97	1	0.0	0.0	0.2	1
33000-34000	1	78.10	87.80	88.80	90.30	97.11	1	-18.04	-11.88	-10.00	-10.00	-7.97	1	0.0	0.0	0.0	1
34000-38000	1	78.10	88.30	88.30	87.30	93.30	1	-22.03	-12.03	-10.00	-8.08	-7.97	1	0.0	0.0	0.0	1

1200Z

FIGURE B-15-1-C

B-243

BOGOTA

WET SEASON

THICKNESS STATISTICS

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLES THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-9000	1.2	30	212	325	2.1	30	226	358	88.2	3230	26904	26933	2.7	98	322	1213
9000-10000	0.4	197	197	197	0.0				1.9	98	26132	25821	2.1	98	541	1024
10000-11000	0.2	98	98	98	0.8	98	194	482	4.1	3652	6662	25034	0.8	295	689	787
11000-12000	0.6	98	197	394	0.4	98	98	98	1.4	4428	10728	23852	0.6	98	295	787
12000-13000	0.2	197	197	197	0.4	197	246	295	1.0	1673	4232	22376	0.6	98	295	394
13000-14000	0.6	98	197	295	1.6	98	197	394	1.8	98	3837	19095	0.6	98	344	787
14000-15000	0.8	98	98	98	1.4	98	197	295	3.1	1516	20014	20801	1.0	988	1181	1378
15000-16000	0.8	98	197	295	2.1	98	197	295	3.5	591	19128	19521	1.8	98	492	1842
16000-17000	1.2	131	194	328	2.7	112	184	315	5.3	889	18291	18740	3.1	138	328	1089
17000-18000	0.4	164	164	164	1.9	164	164	328	4.7	888	17388	17881	2.5	164	328	1083
18000-19000	1.8	164	164	164	2.1	164	164	328	7.2	443	18912	18733	2.9	164	164	738
19000-20000	0.2	164	164	164	0.8	164	164	164	2.8	3002	18338	15699	2.8	164	574	771

0000Z

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLES THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-9000	0.9	83	226	502	1.9	30	212	389	88.8	3278	26933	26933	7.8	98	423	789
9000-10000	1.1	197	197	344	0.4	98	295	492	1.6	98	5118	25998	1.1	98	197	815
10000-11000	0.5	98	197	394	1.7	98	295	591	4.8	1732	6695	25034	0.9	197	492	1498
11000-12000	0.8	118	295	295	1.6	98	197	482	2.1	98	5774	23794	0.8	98	197	758
12000-13000	0.4	98	197	394	1.1	98	295	433	2.4	98	2412	22770	1.6	98	394	1280
13000-14000	1.3	98	98	226	2.7	98	197	394	5.0	268	5003	21718	2.1	98	443	1102
14000-15000	1.0	98	98	197	1.9	98	197	335	4.8	98	20014	20801	3.1	98	295	1083
15000-16000	1.3	98	197	295	2.1	98	197	295	8.0	410	19128	19817	2.8	98	394	853
16000-17000	1.0	141	184	210	1.1	131	184	492	4.0	478	18045	18832	2.8	164	492	1010
17000-18000	0.7	164	184	328	0.8	164	164	328	4.3	888	17225	17881	3.3	164	492	1148
18000-19000	0.9	164	164	164	1.3	164	164	328	8.5	1080	18078	18897	4.1	164	328	820
19000-20000	0.1	164	164	164	0.2	164	164	328	2.5	1478	18092	15899	2.5	164	328	984

1200Z

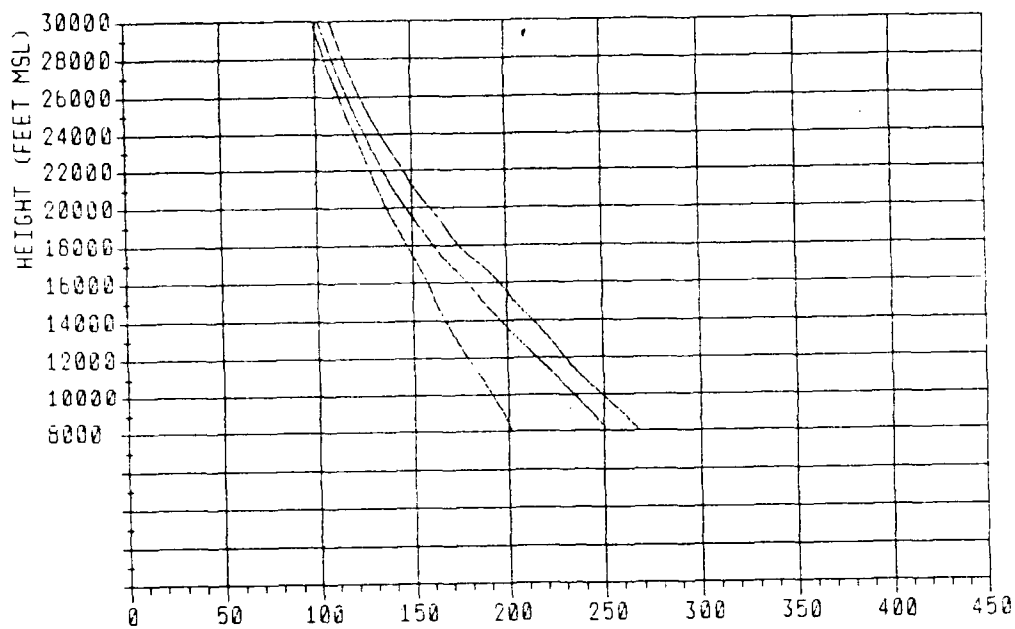
FIGURE B-15-1-D

B-244

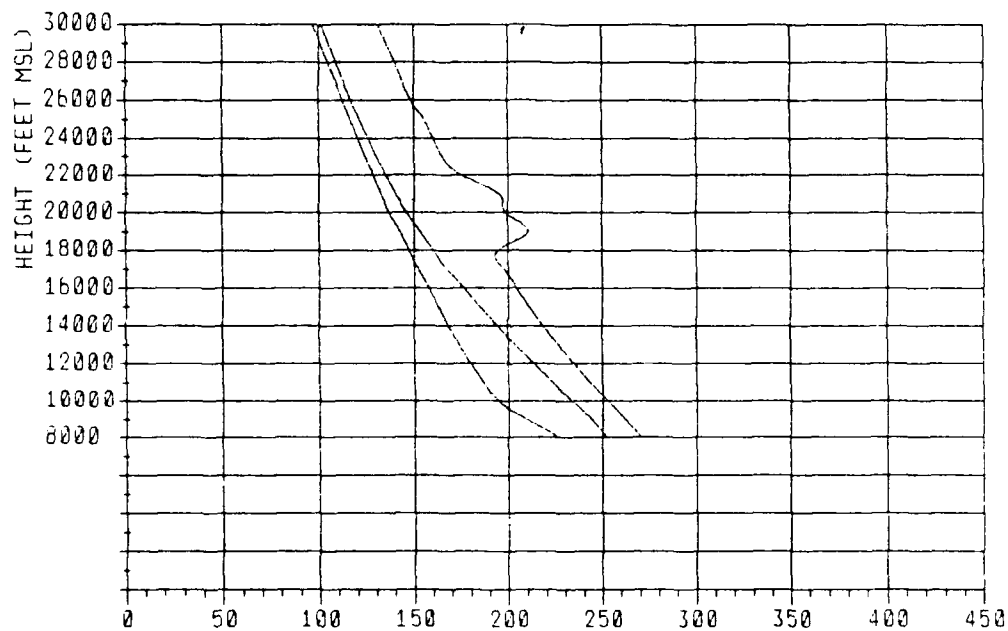
BOGOTA

DRY SEASON

N PERCENTILES



N (N-Units) 0000Z



N (N-Units) 1200Z

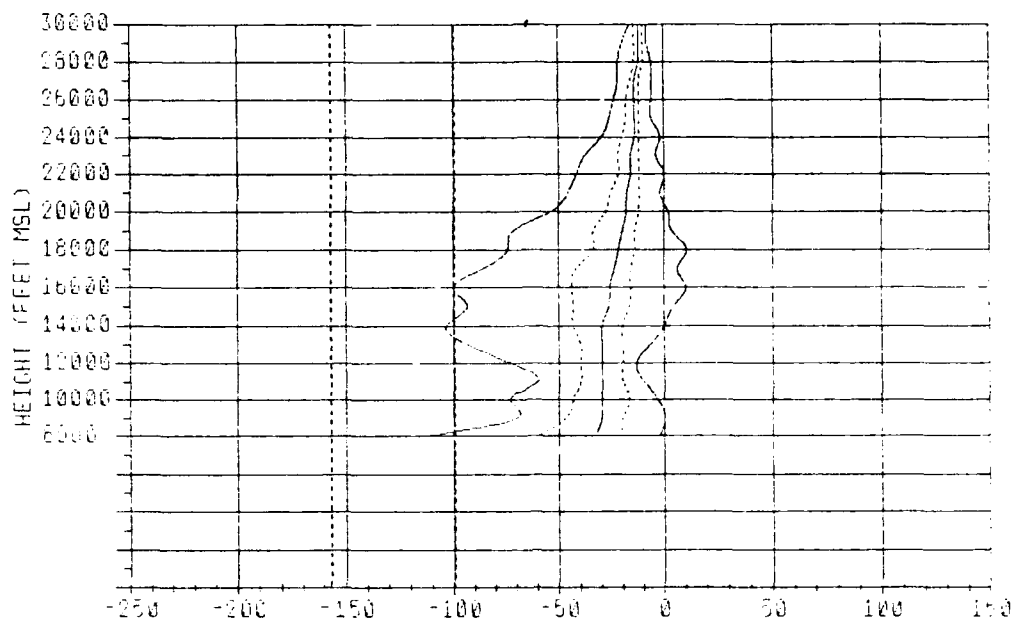
FIGURE B-15-3-A

B-245

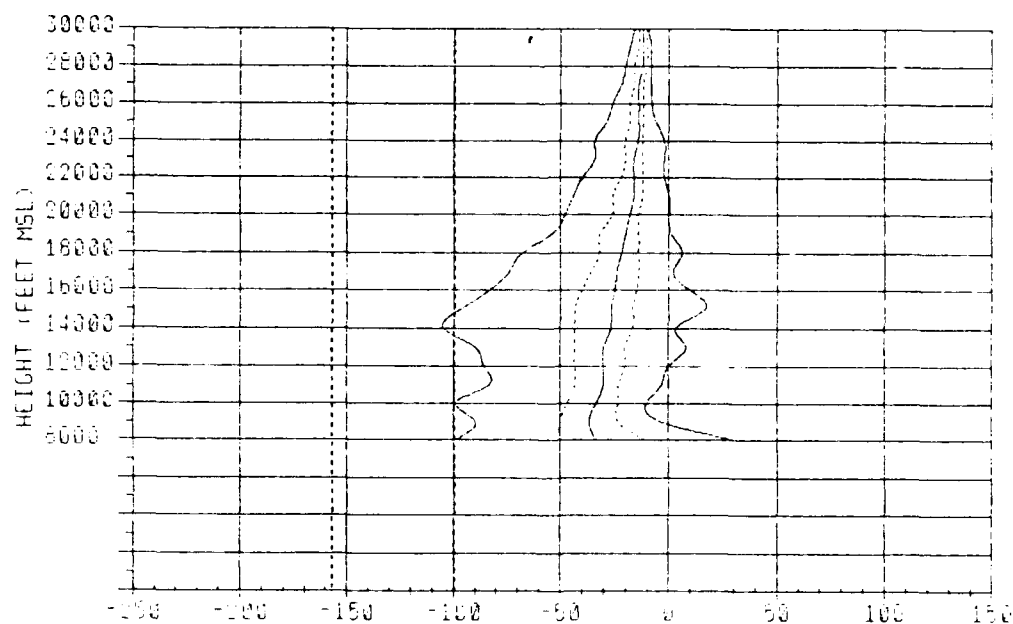
BOGOTA

DRY SEASON

GRADIENT PERCENTILES



DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-15-3-B

B-246

BOGOTA

DRY SEASON

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
SFC-8000	186.78	200.80	249.20	281.00	287.27	-103.38	-54.18	-30.07	-20.05	-1.87	0.8	2.2	1.2
8000-10000	188.80	183.80	238.00	248.80	258.08	-70.08	-43.38	-28.88	-18.82	3.26	1.6	0.2	2.2
10000-11000	183.00	188.80	230.10	238.80	248.10	-68.82	-40.10	-28.88	-18.82	-8.84	0.3	0.5	1.2
11000-12000	178.81	179.80	221.00	228.80	238.40	-60.02	-38.87	-28.88	-18.82	-10.03	0.7	0.3	0.3
12000-13000	188.80	173.10	211.70	218.80	228.80	-78.88	-38.87	-28.88	-18.82	-13.28	0.3	1.8	0.5
13000-14000	182.81	188.70	201.30	208.70	220.10	-68.88	-38.87	-28.88	-18.82	-8.84	0.5	2.4	1.2
14000-18000	187.10	160.40	181.80	188.00	210.87	-88.84	-38.87	-28.88	-18.82	0.00	1.7	2.7	2.7
18000-18000	181.80	184.70	182.28	180.87	201.88	-88.74	-43.23	-28.88	-18.88	8.84	1.5	3.1	4.6
18000-17000	148.00	148.80	173.80	182.80	183.88	-84.21	-40.04	-23.88	-18.81	8.87	0.7	3.4	3.8
17000-18000	140.78	143.70	164.18	174.10	181.82	-78.01	-38.01	-21.88	-18.84	0.18	0.3	1.2	2.6
18000-18000	138.00	138.20	158.00	168.20	172.20	-74.38	-31.88	-20.00	-13.88	8.02	1.8	1.5	3.8
18000-20000	130.10	132.80	148.40	157.80	164.18	-77.54	-30.00	-17.88	-13.88	-3.88	0.8	0.5	1.8
20000-21000	128.80	128.20	142.40	151.00	158.80	-80.00	-28.01	-18.01	-12.03	0.00	0.2	0.2	2.3
21000-22000	121.10	123.80	137.10	144.70	150.07	-48.84	-23.81	-18.01	-12.03	-2.32	0.2	0.2	1.4
22000-23000	118.80	118.20	132.10	138.80	144.17	-38.83	-21.88	-18.84	-12.03	0.00	0.0	0.0	2.1
23000-24000	112.00	114.70	127.00	132.80	137.40	-32.03	-20.00	-13.88	-11.88	-3.88	0.2	0.0	1.8
24000-28000	108.00	110.30	122.20	127.20	131.21	-28.04	-18.04	-13.88	-11.88	-5.84	0.4	0.7	1.8
28000-28000	104.20	108.40	118.00	122.30	125.81	-28.84	-17.88	-13.88	-11.88	-8.84	0.0	0.0	0.7
28000-27000	100.80	102.70	114.00	117.54	121.81	-22.03	-18.01	-12.03	-11.88	-7.87	0.0	0.0	0.4
27000-28000	98.80	98.80	108.80	112.80	118.85	-20.00	-18.08	-12.03	-10.00	-7.87	0.0	0.0	0.7
28000-28000	93.00	98.00	108.70	108.30	112.82	-20.00	-13.88	-12.03	-10.00	-10.00	0.0	0.0	0.2
28000-30000	88.80	91.70	102.20	104.40	108.72	-18.01	-13.88	-11.88	-10.00	-10.00	0.0	0.0	0.2
30000-31000	88.80	88.80	98.80	100.80	105.10	-18.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.4
31000-32000	83.80	88.40	95.40	97.30	101.88	-20.00	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
32000-33000	80.20	82.10	91.80	93.80	98.01	-13.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.2
33000-34000	77.40	78.00	88.80	90.20	94.48	-20.00	-11.88	-10.00	-8.08	-7.87	0.0	0.0	0.0
34000-38000	78.80	78.80	88.10	87.30	91.80	-21.88	-11.88	-10.00	-7.87	-7.87	0.0	0.0	0.2

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		SRLR	SUB
SFC-8000	201.20	242.10	291.80	258.28	288.31	-103.28	-50.00	-33.33	-12.80	33.33	1.0	2.4	8.5
8000-10000	184.20	228.80	241.40	248.00	258.98	-83.23	-48.74	-33.33	-23.30	-8.84	1.2	1.2	1.8
10000-11000	187.20	218.8	230.80	238.80	248.70	-88.81	-43.38	-33.33	-23.30	-10.03	1.3	2.2	1.3
11000-12000	178.80	202.80	220.80	227.80	240.70	-83.33	-40.10	-30.07	-23.30	-3.26	0.8	1.8	1.2
12000-13000	173.28	181.10	210.80	217.40	232.00	-88.87	-40.10	-28.88	-20.08	0.00	1.0	2.0	2.5
13000-14000	188.88	181.80	200.80	208.00	223.80	-88.87	-43.38	-28.88	-18.82	8.71	1.0	2.8	3.1
14000-18000	180.40	172.80	181.10	188.80	218.80	-103.38	-43.38	-28.88	-18.88	8.84	1.4	4.1	3.6
18000-18000	184.80	188.80	181.70	188.80	208.30	-83.38	-43.38	-28.88	-18.88	10.03	1.5	2.8	4.8
18000-17000	148.10	188.30	173.10	181.80	200.78	-81.18	-38.04	-23.88	-18.01	3.26	1.0	1.5	3.3
17000-18000	143.40	183.30	164.80	173.30	181.01	-87.88	-33.88	-22.03	-13.88	0.00	0.2	1.0	2.8
18000-18000	137.80	147.40	158.80	165.50	183.88	-82.03	-31.88	-20.00	-13.88	8.02	0.8	1.1	5.0
18000-20000	132.80	142.20	148.70	157.70	178.44	-48.01	-27.88	-18.04	-13.88	-2.03	0.2	0.4	2.3
20000-21000	127.70	137.40	144.00	151.10	168.88	-48.01	-27.01	-17.88	-12.03	0.00	0.1	0.3	2.8
21000-22000	123.20	132.80	138.80	144.80	163.81	-43.88	-24.08	-18.01	-12.03	-1.88	0.2	0.2	2.1
22000-23000	118.70	128.80	132.10	138.80	158.71	-38.28	-22.03	-18.01	-12.03	-2.03	0.2	0.1	1.8
23000-24000	113.80	123.70	128.10	133.10	152.2	-33.88	-20.00	-18.08	-11.88	-2.03	0.0	0.2	1.5
24000-28000	108.70	118.80	123.20	127.80	148.75	-33.88	-20.00	-13.88	-11.88	-3.88	0.1	0.4	1.8
28000-28000	108.73	115.80	118.80	122.50	141.80	-28.01	-17.88	-13.88	-11.88	-8.02	0.1	0.0	0.5
28000-27000	101.80	111.80	114.80	117.80	135.30	-25.83	-18.01	-13.88	-11.88	-7.87	0.0	0.1	0.1
27000-28000	97.80	107.80	110.30	113.20	128.78	-21.88	-18.01	-12.03	-11.88	-7.87	0.0	0.0	0.5
28000-28000	84.20	103.88	108.20	104.50	122.81	-18.32	-14.08	-12.03	-10.00	-8.08	0.0	0.0	0.4
28000-30000	80.80	100.50	102.80	104.80	118.84	-18.01	-13.88	-11.88	-10.00	-8.08	0.0	0.1	0.1
30000-31000	87.80	87.28	98.10	101.00	111.85	-17.88	-12.03	-11.88	-10.00	-7.87	0.0	0.0	0.2
31000-32000	84.40	93.80	95.70	97.80	108.78	-22.01	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.1
32000-33000	81.00	90.40	92.20	94.00	105.84	-13.88	-12.03	-10.00	-10.00	-7.87	0.0	0.0	0.0
33000-34000	78.00	87.30	88.88	90.30	102.02	-20.00	-11.88	-10.00	-10.00	-7.87	0.0	0.0	0.0
34000-38000	78.80	88.20	88.30	87.30	98.58	-22.03	-12.03	-10.00	-8.08	-7.87	0.0	0.0	0.0

1200Z
FIGURE B-15-3-C

B-247

BOGOTA

DRY SEASON

THICKNESS STATISTICS

BASE FT MSL	DUCTS THK PERCENTILES				NFRQ	SRLRS THK PERCENTILES				NFRQ	NORMAL THK PERCENTILES				NFRQ	SUB THK PERCENTILES			
	NFRQ	10%	50%	90%		10%	50%	90%	10%		50%	90%	10%	50%		90%			
FC-9000	0.9	30	228	522	2.2	84	228	507	99.8	5177	26904	26933	1.2	197	817	1900			
00-10000	1.6	197	197	197	0.2	98	98	98	1.0	3937	11942	25723	1.7	197	197	1073			
00-11000	0.3	197	246	295	0.5	98	197	295	5.7	2087	6894	25034	0.9	98	148	984			
00-12000	0.7	197	197	197	0.3	394	443	492	0.7	4038	5561	23754	0.2	197	197	197			
00-13000	0.3	98	98	98	1.2	98	148	889	1.4	394	4560	22770	0.5	98	984	984			
00-14000	0.5	98	197	197	2.1	98	197	384	2.9	1476	21195	21824	0.9	295	787	1476			
00-15000	1.7	98	148	295	2.6	98	295	338	4.6	98	18438	20594	2.2	98	394	1759			
00-16000	1.2	98	98	197	2.7	98	197	325	5.7	1214	18128	19817	3.6	98	344	1099			
00-17000	0.5	184	184	184	2.9	131	184	328	5.8	184	18048	18931	2.4	98	328	951			
00-18000	0.3	184	184	184	1.2	184	184	328	4.3	1085	17143	17981	1.9	184	328	951			
00-19000	1.9	184	184	184	1.5	184	184	328	5.3	804	18912	18385	3.1	184	328	1185			
C-20000	0.5	184	184	184	0.5	184	184	184	2.6	787	18288	18748	1.2	184	328	1148			

0000Z

BASE FT MSL	NFRQ	DUCTS THK PERCENTILES			NFRQ	SRLRS THK PERCENTILES			NFRQ	NORMAL THK PERCENTILES			NFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
FC-9000	1.0	30	197	1034	2.4	30	295	889	99.4	2728	26904	26933	9.5	98	423	718
00-10000	1.1	98	197	394	1.5	98	295	492	2.8	187	9219	25959	1.0	98	295	915
00-11000	1.2	197	295	335	2.0	98	295	492	4.0	1122	5413	24935	0.3	197	541	1417
00-12000	0.6	98	197	394	1.1	98	197	541	2.3	2658	6444	23754	0.9	197	1181	1989
00-13000	1.0	98	197	364	1.8	98	295	492	3.3	177	22081	22770	1.9	98	344	1201
00-14000	1.0	98	197	354	2.3	98	197	295	4.7	98	4511	21738	1.2	98	394	899
00-15000	1.2	98	98	238	3.8	98	197	295	6.2	138	20014	20801	3.0	98	394	1083
00-16000	1.4	98	98	298	2.3	98	197	295	6.8	781	19177	19817	3.4	98	394	591
00-17000	0.8	102	184	184	1.4	157	295	328	4.3	2051	18209	18832	2.0	154	381	889
00-18000	0.2	184	184	328	0.9	184	184	328	3.3	853	17225	17881	2.2	184	328	675
00-19000	0.9	184	184	184	1.0	184	184	282	5.5	1938	18078	18733	4.5	184	328	873
00-20000	0.2	184	184	184	0.4	184	184	328	2.2	1427	18174	18748	1.8	184	328	658

1200Z

FIGURE B-15-3-D

B-248

BOGOTA

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY

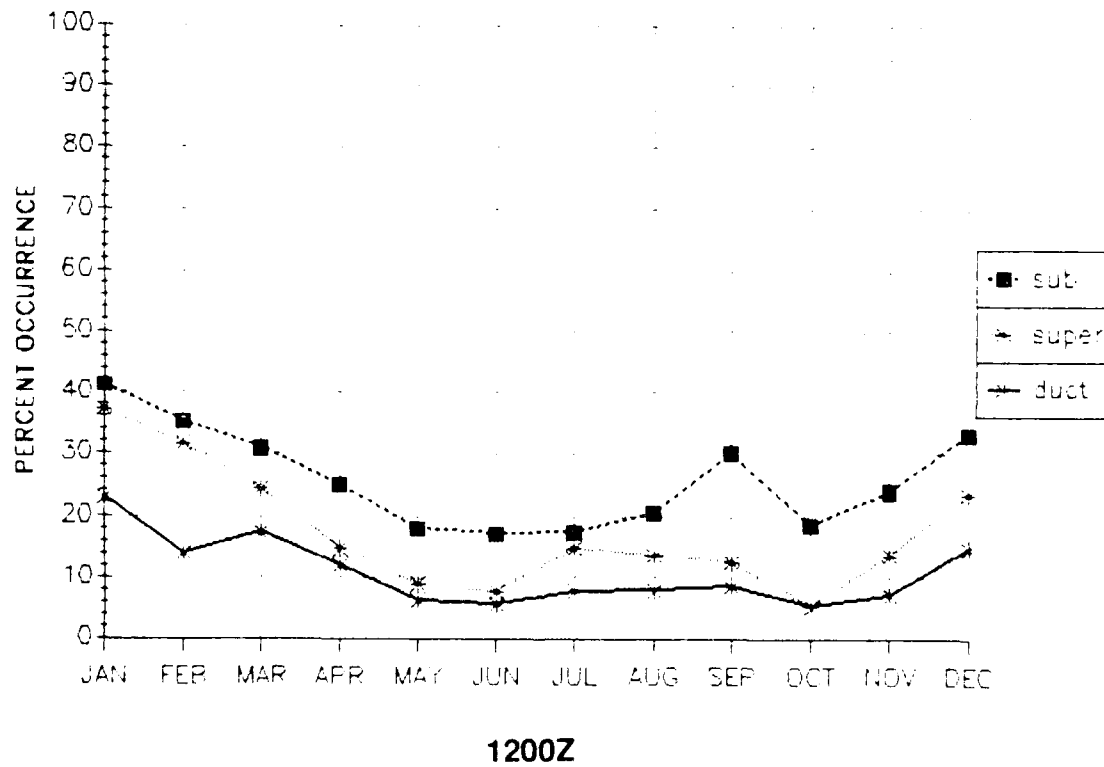
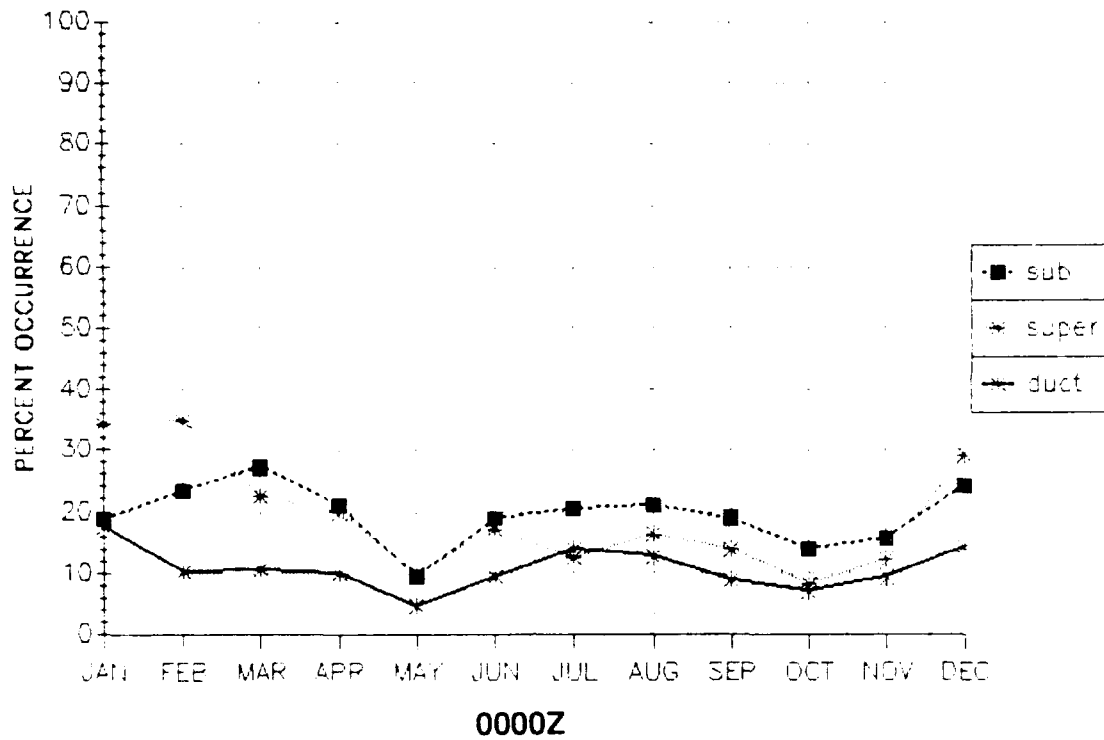


FIGURE B-15-5

B-249

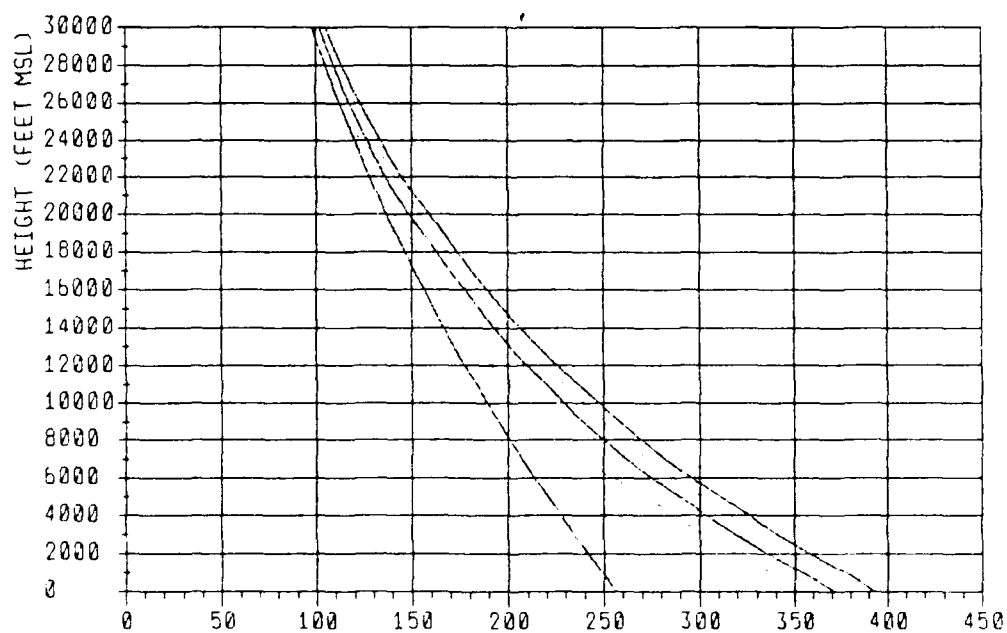
BELEM

WET SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-16-1-A

B-250

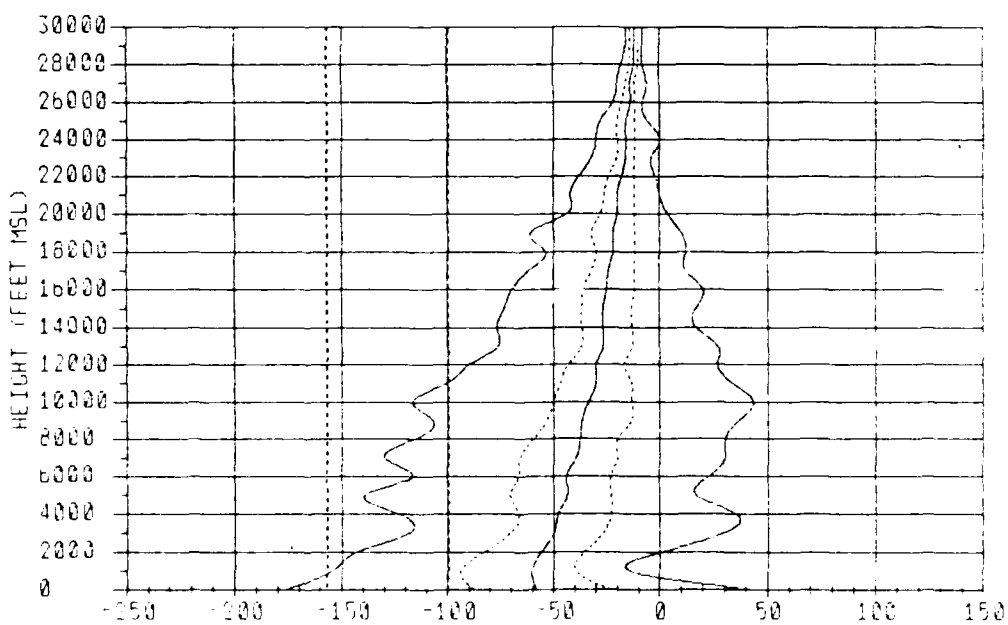
BELEM

WET SEASON

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-16-1-B

B-251

NO DATA AVAILABLE

0000Z

HGT FT MSL	N PERCENTILES					DNDH PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DUCT	BR/L	BUS
0FC-500	258.34	344.19	376.19	384.38	392.47	-179.14	-87.50	-54.14	-13.39	41.44	4.1	9.9	11.0
500-1000	255.13	356.52	367.23	376.00	384.19	-166.44	-83.33	-56.25	-26.69	2.08	2.4	7.4	1.9
1000-1500	251.47	345.91	358.23	347.75	377.60	-156.25	-95.83	-60.41	-35.41	-11.94	2.0	11.9	1.1
1500-2000	247.70	335.23	348.69	358.38	368.09	-145.08	-97.91	-58.33	-39.58	-6.25	1.8	10.0	1.0
2000-2500	243.90	325.00	339.19	348.87	358.91	-132.52	-87.50	-56.25	-37.50	-2.08	1.4	7.9	1.3
2500-3000	239.80	314.50	329.50	339.69	349.75	-141.41	-79.16	-54.14	-29.16	10.42	1.6	5.3	2.8
3000-3500	236.00	304.87	320.69	330.50	341.25	-123.31	-74.79	-50.00	-23.30	43.75	0.7	4.1	3.2
3500-4000	232.60	297.01	313.03	323.19	333.69	-122.91	-72.91	-50.00	-23.30	29.16	0.6	4.2	3.5
4000-4500	229.38	288.88	303.50	316.00	326.75	-127.08	-70.83	-47.91	-21.04	29.16	0.8	3.2	4.2
4500-5000	226.10	282.51	298.23	309.25	320.30	-145.83	-72.91	-43.75	-20.05	33.33	2.7	4.9	6.9
5000-6000	219.80	269.69	287.23	299.19	308.69	-143.75	-75.00	-43.75	-22.91	18.75	2.6	7.4	5.1
6000-7000	213.10	252.20	273.06	284.69	293.56	-118.75	-72.91	-41.66	-20.83	27.08	1.2	6.8	5.4
7000-8000	206.70	238.30	260.00	271.75	280.94	-131.98	-66.66	-39.58	-19.92	36.59	2.2	5.6	7.6
8000-9000	199.90	224.60	247.20	259.38	268.38	-123.30	-63.28	-36.71	-16.66	33.33	2.4	5.5	9.8
9000-10000	193.80	214.30	236.00	247.20	258.93	-106.64	-53.38	-33.33	-10.03	46.61	1.3	3.5	12.2
10000-11000	188.00	206.70	226.10	236.50	245.24	-116.64	-53.38	-30.07	-10.03	40.02	1.9	4.9	13.7
11000-12000	181.80	197.24	216.40	225.90	234.00	-101.78	-46.61	-29.95	-10.03	36.59	1.0	4.2	9.6
12000-13000	176.10	189.80	207.20	216.00	223.10	-89.97	-43.36	-26.69	-13.28	26.69	0.6	2.2	8.2
13000-14000	170.21	181.90	198.60	207.10	213.50	-79.95	-39.97	-26.69	-10.03	29.72	0.4	1.3	8.2
14000-15000	164.90	174.70	190.20	198.20	203.84	-76.69	-39.97	-26.56	-10.03	19.92	0.2	1.4	7.8
15000-16000	159.80	167.70	182.60	190.10	195.05	-76.69	-36.71	-26.56	-10.03	20.05	0.6	1.6	9.1
16000-17000	154.90	161.90	175.00	182.30	187.30	-68.04	-36.01	-23.98	-11.95	20.02	0.5	1.1	7.9
17000-18000	149.90	156.10	167.30	173.80	178.60	-60.00	-32.03	-23.98	-11.95	13.89	0.0	0.4	6.6
18000-19000	144.80	150.40	159.70	166.10	170.77	-59.41	-32.03	-22.03	-10.00	15.94	0.5	0.7	8.0
19000-20000	140.00	144.70	152.50	158.40	162.60	-52.03	-30.00	-21.95	-11.95	4.19	0.1	0.1	4.0
20000-21000	135.70	139.30	146.20	151.80	155.80	-46.15	-24.01	-20.00	-12.03	4.04	0.1	0.4	2.6
21000-22000	131.39	134.40	140.20	145.90	149.20	-41.95	-25.93	-18.04	-11.95	0.00	0.1	0.0	1.8
22000-23000	127.10	129.70	134.70	139.50	143.10	-38.04	-22.03	-17.94	-11.95	-1.95	0.2	0.1	1.7
23000-24000	122.51	124.90	129.10	133.60	137.09	-31.73	-20.00	-16.01	-11.95	-2.03	0.0	0.0	1.8
24000-25000	118.50	120.60	124.00	127.90	130.70	-30.00	-20.00	-16.01	-11.95	0.00	0.0	0.2	2.5
25000-26000	114.70	116.50	119.40	122.80	125.50	-26.01	-18.04	-14.06	-11.95	-7.97	0.0	0.0	0.2
26000-27000	111.00	112.60	115.10	118.00	120.40	-21.95	-16.01	-13.98	-11.95	-6.02	0.0	0.0	0.5
27000-28000	106.90	108.40	110.80	113.40	115.70	-20.00	-16.01	-12.03	-10.00	-6.02	0.0	0.0	0.4
28000-29000	103.40	104.70	106.70	108.80	110.40	-17.94	-14.06	-12.03	-10.00	-8.05	0.0	0.0	0.0
29000-30000	100.16	101.30	103.00	104.90	106.40	-16.01	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.0
30000-31000	96.90	98.10	99.60	101.20	102.60	-14.06	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.1
31000-32000	93.70	94.80	96.20	97.80	99.00	-16.97	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.4
32000-33000	90.10	91.10	92.70	94.30	95.23	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	87.10	88.00	89.30	90.60	91.40	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	84.80	85.80	86.70	87.70	88.20	-17.94	-11.95	-10.00	-10.00	-8.05	0.0	0.0	0.0

1200Z

FIGURE B-16-1-C

B-252

BELEM

WET SEASON

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	DUCTS THK PERCENTILES				SRLRS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%
8FC-500	4.1	44	243	531	9.9	98	243	538	97.8	627	9495	35218	11.0	98	243	455
500-1000	1.7	98	295	591	5.5	98	394	984	5.4	98	7284	34493	0.8	98	197	884
1000-1500	0.8	98	394	787	8.1	98	591	1083	6.1	98	16372	34188	0.7	197	443	787
1500-2000	1.3	138	295	649	3.8	98	591	1280	5.1	884	8120	33548	0.4	689	1181	1181
2000-2500	0.8	98	295	689	2.4	98	640	1171	5.4	98	4330	33125	1.0	98	787	2658
2500-3000	1.2	295	443	679	1.6	177	689	1299	4.3	98	2067	15860	1.7	98	787	1358
3000-3500	0.2	394	443	492	2.4	98	591	884	3.3	98	1575	31727	1.1	98	738	1348
3500-4000	0.8	295	541	591	2.3	98	492	1280	3.5	98	2854	31628	1.6	98	884	1220
4000-4500	0.4	295	295	394	1.1	98	394	787	2.7	98	2362	30841	2.0	98	689	1093
4500-5000	2.5	98	295	492	3.7	98	295	945	6.0	157	3839	30250	4.1	98	344	1280
5000-6000	1.7	148	295	492	5.8	98	492	817	9.7	98	3051	29758	2.7	98	689	1673
6000-7000	1.2	197	295	394	4.9	98	394	758	7.3	98	1969	28518	3.3	98	591	1555
7000-8000	1.8	98	197	492	4.1	98	394	689	8.0	98	2707	27878	5.0	98	837	2008
8000-9000	2.2	98	197	394	3.9	98	344	591	8.8	98	1870	26608	5.9	138	689	1732
9000-10000	1.1	98	295	492	2.9	98	295	492	7.3	98	2953	25723	7.6	98	591	1575
10000-11000	1.8	98	197	433	4.3	98	295	512	12.9	98	2658	24847	6.6	98	640	1280
11000-12000	1.0	197	197	295	3.5	98	295	492	9.9	98	3642	23754	5.6	98	689	1898
12000-13000	0.6	98	197	295	1.6	98	197	335	6.8	98	2756	22474	5.1	98	689	1417
13000-14000	0.2	98	98	98	1.2	98	98	295	6.6	98	1870	21588	4.4	98	640	1280
14000-15000	0.2	98	148	197	1.1	98	197	295	5.0	98	3038	20506	4.9	98	591	1211
15000-16000	0.6	98	197	295	1.4	98	197	266	7.9	98	3675	19817	5.5	98	623	1148
16000-17000	0.8	98	164	230	1.0	131	164	295	6.2	164	18209	18832	4.9	164	656	1148
17000-18000	0.0				0.4	328	328	328	4.7	984	17225	17881	4.4	164	656	1148
18000-19000	0.5	164	164	164	0.6	164	164	328	8.3	820	15912	16897	6.1	164	492	820
19000-20000	0.1	164	164	164	0.1	164	164	164	2.9	1476	15420	15748	2.5	164	656	1148

1200Z

FIGURE B-16-1-D

B-253

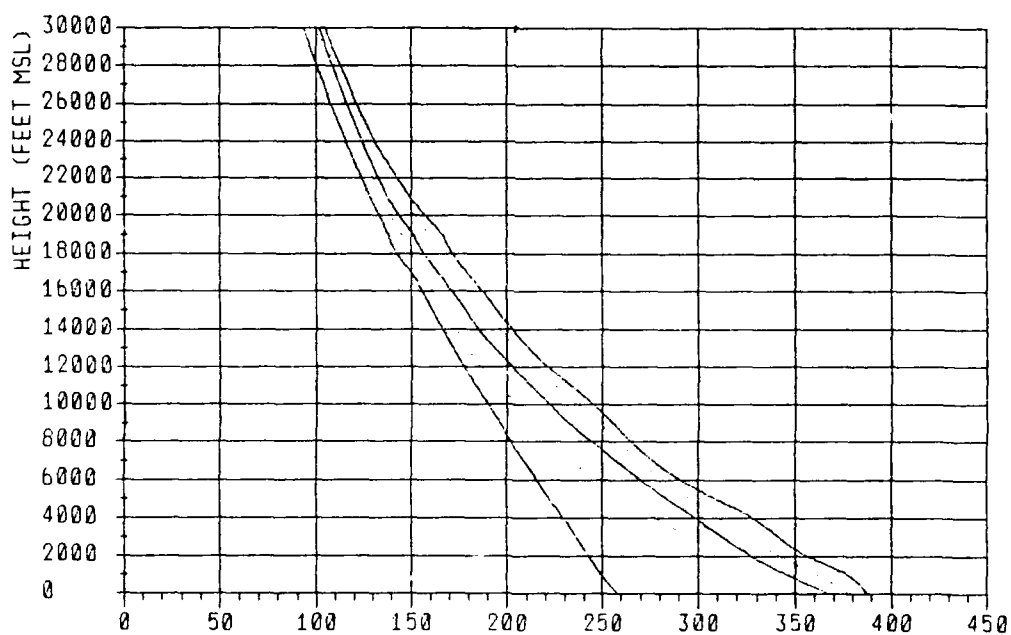
BELEM

WET-DRY TRANSITION

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-16-2-A

B-254

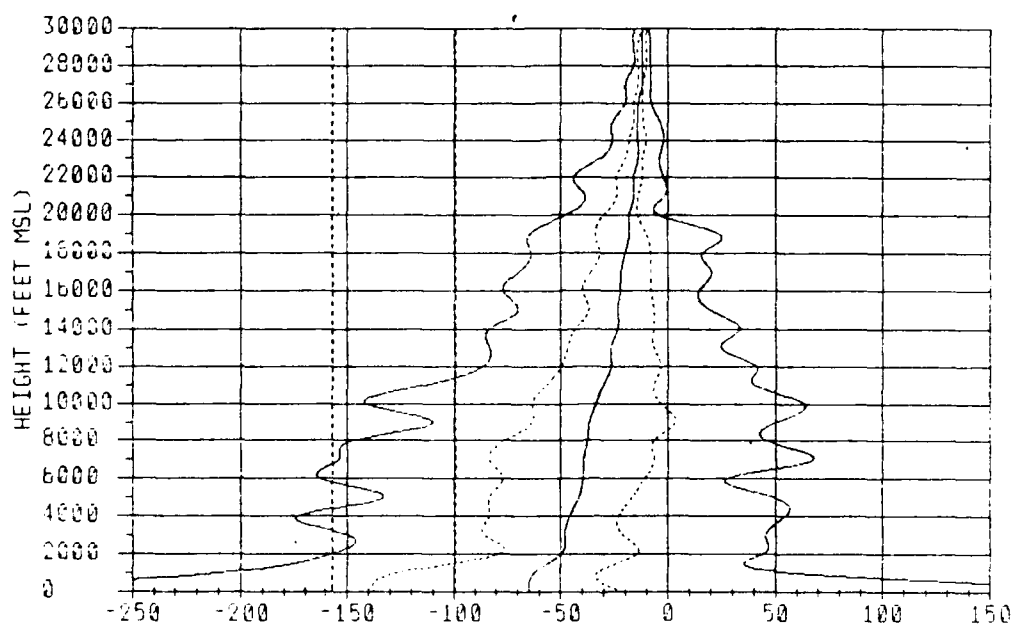
BELEM

WET-DRY TRANSITION

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-16-B

B-255

NO DATA AVAILABLE

0000Z

HBT FT MSL	N PERCENTILES					DNOM PERCENTILES					PERCENT DUCT	OCCURRENCE	
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%		SBLR	SUB
0FC-500	303.74	340.24	373.88	382.87	388.75	-382.19	-129.44	-88.33	-8.33	215.16	14.0	19.7	12.9
500-1000	289.00	344.90	343.00	373.54	380.54	-331.13	-149.58	-64.64	-27.08	440.56	15.8	27.5	7.0
1000-1500	255.17	333.29	351.03	343.49	388.00	-241.54	-145.83	-70.83	-41.64	121.31	11.1	27.5	6.4
1500-2000	248.05	322.44	339.25	353.21	377.02	-164.64	-114.58	-84.25	-22.91	72.16	2.9	19.3	9.9
2000-2500	244.74	315.00	330.54	344.71	344.38	-141.41	-83.33	-50.00	-4.25	73.58	0.0	10.5	11.7
2500-3000	241.04	308.54	323.00	334.38	354.42	-168.25	-72.91	-45.83	-10.42	43.75	2.3	5.8	9.9
3000-3500	237.44	300.54	315.25	328.69	345.04	-148.83	-87.50	-45.83	-14.58	64.41	1.2	7.0	9.4
3500-4000	234.05	292.75	308.54	320.35	339.75	-172.91	-89.58	-45.83	-22.08	47.64	2.3	8.8	5.8
4000-4500	230.11	282.12	301.54	312.14	331.85	-154.87	-88.75	-45.83	-22.91	41.50	1.8	11.1	4.7
4500-5000	227.30	275.37	293.88	304.69	324.85	-224.89	-93.75	-43.75	-19.92	91.71	4.1	11.7	8.2
5000-6000	220.48	261.37	282.25	295.00	309.55	-134.01	-85.41	-39.58	-14.58	58.67	1.8	15.8	10.5
6000-7000	214.61	244.18	268.50	281.00	290.18	-171.44	-83.33	-39.58	-10.42	29.00	4.7	11.7	12.9
7000-8000	208.22	232.20	254.38	269.25	274.04	-152.85	-85.41	-39.58	-3.39	72.98	4.7	12.9	14.0
8000-9000	201.08	219.51	241.70	257.75	264.70	-157.90	-83.21	-39.58	-3.39	50.64	4.1	12.3	14.0
9000-10000	195.01	208.40	228.80	244.70	253.59	-119.68	-63.41	-33.33	6.64	50.00	2.3	5.8	20.8
10000-11000	190.03	202.48	218.60	233.20	242.99	-136.19	-64.64	-33.33	-3.24	63.02	2.9	8.8	24.6
11000-12000	182.83	192.54	209.20	222.00	230.43	-113.41	-54.64	-29.95	-3.39	37.30	0.6	4.7	13.5
12000-13000	178.22	185.01	200.70	211.30	218.98	-84.71	-50.00	-26.69	-3.24	50.00	0.6	1.8	18.1
13000-14000	171.81	178.02	191.10	202.30	209.60	-84.71	-50.00	-26.69	-6.64	29.95	2.3	2.3	11.7
14000-15000	166.01	171.60	183.00	193.30	199.59	-79.71	-43.23	-23.30	-6.64	40.09	0.0	2.3	12.3
15000-16000	161.43	165.70	174.30	185.79	191.49	-79.59	-40.09	-23.30	-6.64	14.64	1.2	1.2	8.2
16000-17000	155.29	159.40	168.30	178.64	184.00	-74.02	-40.00	-22.03	-7.97	18.01	0.6	1.2	8.8
17000-18000	148.09	153.50	160.30	170.40	175.97	-73.45	-37.94	-20.97	-7.97	29.48	0.6	0.6	8.2
18000-19000	141.15	147.60	153.70	162.80	169.41	-64.27	-32.03	-18.04	-6.02	17.97	0.0	1.2	9.9
19000-20000	140.41	142.60	147.00	155.30	161.09	-54.04	-33.98	-17.94	-12.03	-0.20	0.6	0.6	3.0
20000-21000	134.01	137.80	141.40	148.20	152.70	-45.61	-27.94	-14.01	-13.98	-2.19	0.0	0.6	0.6
21000-22000	131.70	133.20	134.20	141.87	145.79	-45.95	-23.98	-14.01	-12.03	-1.94	0.0	0.0	1.8
22000-23000	127.40	128.80	131.30	135.77	139.59	-37.91	-21.03	-14.04	-12.03	-1.94	0.0	0.0	2.4
23000-24000	122.67	124.10	126.50	129.70	134.04	-30.00	-18.04	-13.98	-11.95	-3.40	0.0	0.0	1.8
24000-25000	118.90	120.00	122.10	125.00	128.00	-27.91	-14.01	-13.98	-11.95	-3.98	0.0	0.0	1.8
25000-26000	115.10	114.10	118.10	120.50	123.40	-21.89	-14.01	-13.98	-11.95	-3.98	0.0	0.0	0.6
26000-27000	111.01	112.20	114.10	116.50	119.00	-20.00	-14.04	-12.03	-11.95	-7.97	0.0	0.0	0.0
27000-28000	107.04	108.10	110.10	112.20	114.83	-18.04	-13.98	-12.03	-11.95	-8.02	0.0	0.0	0.0
28000-29000	103.50	104.50	106.20	107.80	110.00	-17.91	-13.98	-11.95	-10.00	-7.97	0.0	0.0	0.6
29000-30000	100.20	101.20	102.70	104.20	105.79	-14.01	-12.03	-11.95	-10.00	-8.11	0.0	0.0	0.0
30000-31000	94.90	95.00	99.40	100.80	102.10	-14.04	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
31000-32000	93.71	94.70	96.10	97.40	98.50	-17.91	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	90.17	91.10	92.60	94.20	95.00	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	84.40	88.00	89.25	90.60	91.10	-13.98	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	84.20	85.80	86.70	87.70	88.10	-14.62	-11.95	-10.00	-8.05	-4.02	0.0	0.0	0.0

1200Z
FIGURE B-16-2-C

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MEL	DUCTS THK PERCENTILES				SPURS THK PERCENTILES				NORMAL THK PERCENTILES				SUB THK PERCENTILES			
	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%	XFRQ	10%	50%	90%
0FC-500	14.0	98	341	815	19.9	98	318	1144	91.8	295	2215	35218	12.9	98	341	787
500-1000	11.1	98	394	591	19.9	98	591	1181	10.5	98	6395	34581	1.8	98	344	884
1000-1500	4.1	98	394	884	9.4	98	492	1280	17.5	98	3051	33971	4.1	98	984	2458
1500-2000	0.0				5.3	98	295	884	14.4	98	3248	33400	4.4	630	1181	1575
2000-2500	0.0				2.3	98	443	1181	9.4	98	2707	32809	2.9	394	884	1772
2500-3000	2.3	197	394	591	3.5	98	984	1280	7.4	98	1181	25814	1.8	884	1181	1378
3000-3500	0.4	492	492	492	2.9	689	787	1181	5.8	98	1575	10512	3.5	98	787	1474
3500-4000	1.8	295	394	591	3.5	98	837	1083	7.0	187	1624	13134	0.4	1870	1870	1870
4000-4500	1.2	689	689	689	7.0	128	394	884	7.0	128	2313	23567	1.2	984	1230	1474
4500-5000	2.9	197	295	295	7.0	98	394	689	8.2	98	394	30329	5.8	98	295	1545
5000-6000	1.8	197	295	295	8.2	98	295	787	18.7	98	1772	29807	7.0	128	984	2104
6000-7000	4.1	98	295	492	9.4	177	394	689	14.4	98	2707	28597	7.4	98	689	1673
7000-8000	4.1	98	98	394	11.1	118	492	778	14.4	98	2441	14022	7.0	98	689	1437
8000-9000	4.1	98	295	394	7.4	98	394	630	19.9	98	2244	26116	8.2	98	787	1494
9000-10000	2.3	98	148	295	5.8	98	295	472	11.1	98	2342	25414	14.0	157	787	1280
10000-11000	2.9	98	197	295	8.2	98	295	433	23.4	98	3543	24837	12.3	98	197	1417
11000-12000	0.4	98	98	98	4.1	197	394	492	9.9	98	1474	12497	7.4	98	787	1230
12000-13000	0.4	98	98	98	1.8	98	98	295	15.2	98	3740	22848	11.7	98	689	1181
13000-14000	2.3	98	98	197	2.3	98	98	295	11.7	187	5282	21724	5.3	98	787	1161
14000-15000	0.0				1.8	98	98	394	8.8	98	20141	20713	8.8	98	591	1181
15000-16000	1.2	98	98	98	1.2	197	244	295	8.2	98	19274	19915	4.1	98	295	787
16000-17000	0.4	144	144	144	0.4	131	131	131	8.2	1440	18373	18881	4.4	459	338	1280
17000-18000	0.4	144	144	144	0.4	328	328	328	4.4	1575	17389	17553	5.3	144	492	1474
18000-19000	0.0				1.2	144	144	144	9.9	2854	15912	16897	8.2	144	492	1084
19000-20000	0.4	144	144	144	0.4	328	328	328	4.1	1440	15254	15748	1.2	144	328	492

1200Z

FIGURE B-16-2-D

B-257

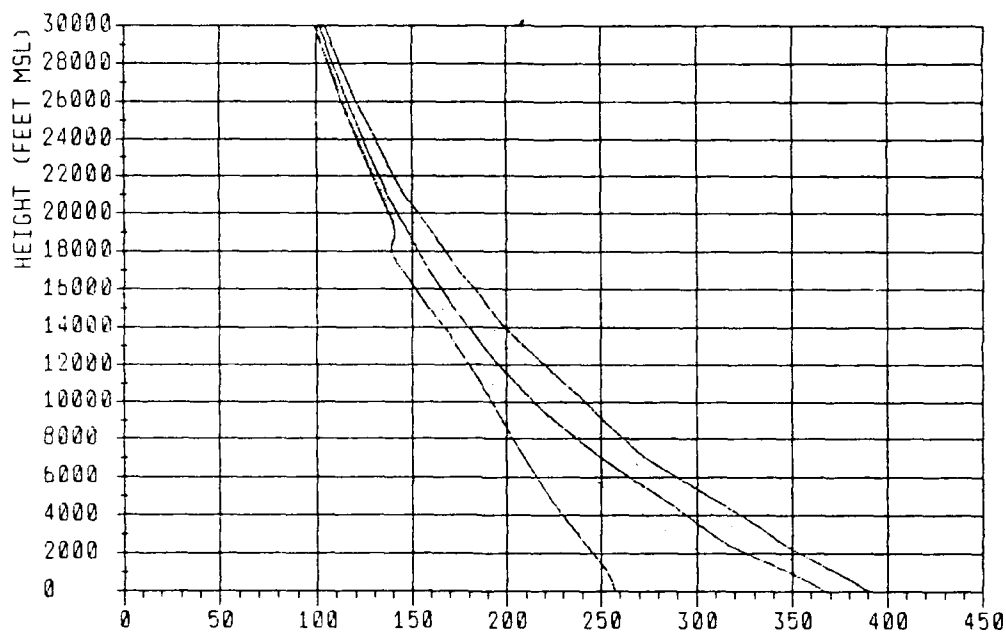
BELEM

DRY SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-16-3-A

B-258

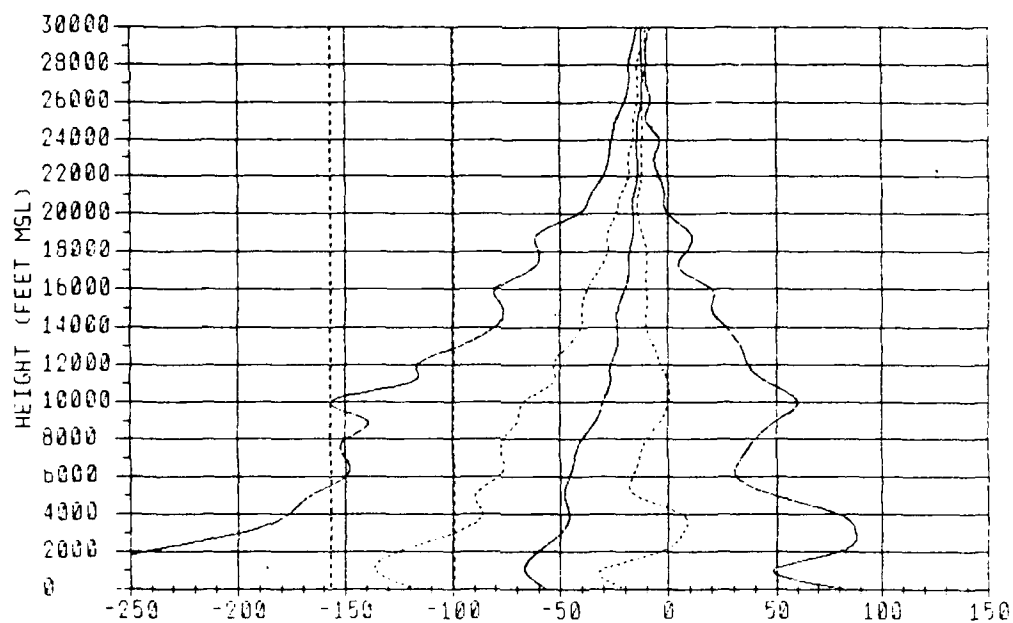
BELEM

DRY SEASON

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-16-3-B

B-259

NO DATA AVAILABLE

0000Z

HST FT MBL	1X	N PERCENTILES				1X	DNDR PERCENTILES				PERCENT OCCURRENCE		
		10X	50X	90X	99X		10X	50X	90X	99X	DUCT	BLR	SUB
8FC-900	229.37	340.00	372.25	381.06	391.58	-416.85	-107.14	-52.08	-10.42	116.89	8.3	13.2	13.2
900-1000	256.18	347.01	363.54	372.75	386.70	-254.54	-114.64	-54.14	-23.30	22.91	9.3	15.4	3.4
1000-1300	253.58	332.38	353.88	364.50	375.20	-299.94	-141.64	-62.50	-31.25	38.54	10.9	28.4	4.0
1500-2000	250.88	318.19	342.19	355.19	365.00	-262.44	-139.58	-64.44	-27.08	42.50	11.3	24.5	7.4
2000-2500	247.39	308.54	330.38	344.49	354.87	-244.71	-137.50	-62.50	-4.25	91.44	12.0	23.9	11.4
2500-3000	242.49	294.38	319.31	334.75	345.39	-243.75	-120.83	-54.14	4.17	98.29	9.4	20.7	17.0
3000-3500	238.08	288.84	310.04	326.00	338.42	-200.00	-104.14	-47.91	10.42	104.70	8.7	14.2	18.4
3500-4000	234.39	282.79	303.38	318.54	332.54	-200.00	-95.83	-45.83	10.42	85.54	4.0	10.4	17.2
4000-4500	230.79	274.00	294.75	311.38	324.78	-177.21	-91.64	-45.83	10.42	77.08	3.9	8.9	16.7
4500-5000	227.70	269.75	290.75	303.88	314.27	-205.23	-87.50	-45.83	4.17	87.85	4.0	10.0	17.7
5000-6000	223.00	257.38	278.38	292.88	304.00	-160.41	-89.58	-47.91	-14.58	52.27	4.7	13.4	9.9
6000-7000	214.20	242.18	263.04	274.90	287.58	-154.25	-79.32	-45.83	-14.64	31.25	3.4	10.7	8.4
7000-8000	211.20	227.80	249.10	263.50	273.00	-150.00	-79.95	-43.34	-13.28	34.82	3.4	11.3	9.2
8000-9000	204.50	215.10	234.80	250.70	259.88	-150.00	-74.69	-39.97	-4.77	43.34	4.0	12.3	11.3
9000-10000	198.40	205.60	221.90	237.60	247.80	-144.74	-70.05	-33.33	0.00	50.00	3.3	9.7	17.1
10000-11000	192.90	197.80	211.40	226.80	234.80	-150.00	-64.64	-29.95	0.00	59.90	4.0	10.7	22.6
11000-12000	185.90	190.30	201.80	216.70	224.40	-126.49	-53.38	-23.44	0.00	44.61	2.6	7.0	18.3
12000-13000	179.90	183.20	193.30	206.80	214.40	-109.89	-50.00	-23.30	-3.24	39.97	1.4	4.9	15.0
13000-14000	173.00	174.20	184.90	197.70	205.90	-94.61	-44.61	-23.30	-4.44	33.33	1.7	3.4	13.9
14000-15000	165.20	169.80	177.10	189.20	194.30	-73.43	-39.97	-23.30	-4.44	29.95	0.7	1.0	10.6
15000-16000	154.70	163.90	169.80	181.20	188.70	-83.33	-40.10	-20.05	-10.03	14.44	0.9	2.1	7.7
16000-17000	149.40	158.50	163.40	173.30	180.30	-74.99	-34.59	-19.92	-10.00	17.94	0.3	1.7	5.9
17000-18000	142.80	153.00	154.90	165.40	172.20	-60.00	-31.95	-17.94	-10.00	7.97	0.0	0.4	5.0
18000-19000	138.30	147.20	151.20	158.50	165.10	-63.99	-28.04	-14.01	-10.00	8.05	0.0	1.4	6.6
19000-20000	141.10	142.30	145.30	151.40	157.48	-50.00	-27.94	-14.01	-13.98	7.37	0.0	0.1	2.3
20000-21000	134.50	137.70	140.30	144.70	150.80	-38.04	-23.98	-14.01	-13.98	0.00	0.0	0.0	2.2
21000-22000	132.10	133.10	135.50	139.20	144.20	-33.98	-20.00	-14.04	-12.03	-1.95	0.0	0.3	2.1
22000-23000	127.80	128.80	131.00	134.20	138.32	-30.00	-18.04	-13.98	-12.03	-3.98	0.0	0.0	1.3
23000-24000	123.10	124.10	126.40	129.10	133.04	-24.01	-17.94	-13.98	-11.95	-6.02	0.0	0.0	0.9
24000-25000	119.07	120.00	122.00	124.30	127.55	-24.54	-14.01	-13.98	-11.95	-5.94	0.0	0.1	0.9
25000-26000	115.10	116.00	117.90	119.90	122.83	-20.00	-14.01	-13.98	-11.95	-8.02	0.0	0.0	0.1
26000-27000	111.40	112.20	113.90	115.80	118.04	-20.00	-14.04	-12.03	-11.95	-10.00	0.0	0.0	0.1
27000-28000	107.20	108.00	109.90	111.80	113.60	-18.02	-13.98	-12.03	-10.00	-10.00	0.0	0.0	0.0
28000-29000	103.80	104.50	106.00	107.50	108.94	-14.01	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.0
29000-30000	100.40	101.10	102.60	104.00	105.14	-14.04	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.0
30000-31000	97.20	97.90	99.30	100.70	101.60	-13.98	-12.03	-10.00	-10.00	-8.05	0.0	0.0	0.0
31000-32000	93.90	94.60	96.00	97.40	98.30	-14.01	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	90.20	91.00	92.50	94.10	94.90	-13.98	-12.03	-10.00	-10.00	-8.05	0.0	0.0	0.0
33000-34000	87.10	87.90	89.20	90.30	91.10	-13.98	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	85.10	85.70	86.60	87.60	88.10	-14.01	-11.95	-10.00	-8.05	-7.97	0.0	0.0	0.1

1200Z
FIGURE B-16-3-C

BELEM

DRY SEASON

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	XFRQ	DUCTS THK PERCENTILES			XFRQ	SRLRS THK PERCENTILES			XFRQ	NORMAL THK PERCENTILES			XFRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-900	8.3	144	341	636	13.2	98	341	1132	95.6	492	2015	34778	13.2	197	341	492
900-1000	4.3	197	492	837	12.0	98	591	1280	8.9	98	4134	34286	1.0	197	394	591
1000-1500	8.6	108	591	974	14.7	98	492	1181	7.4	98	2983	13229	3.1	325	837	2774
1500-2000	6.9	197	541	787	1.6	98	591	1181	14.3	98	1870	9901	4.6	335	886	1474
2000-2500	4.7	177	492	709	10.3	98	394	1083	13.9	98	1870	11221	8.7	118	886	1575
2500-3000	4.4	197	492	787	9.9	98	295	1083	17.6	98	1673	8563	7.9	98	1033	2134
3000-3500	2.7	197	295	689	7.3	98	394	886	12.7	98	1673	15732	7.3	138	1181	1575
3500-4000	2.7	197	394	689	4.4	98	394	886	12.3	98	2859	17848	4.3	98	886	1575
4000-4500	2.0	98	344	886	5.2	98	492	846	8.0	98	4281	18990	4.4	98	640	1585
4500-5000	2.7	98	344	492	6.6	98	295	984	16.7	197	3494	30250	6.7	98	295	1309
5000-6000	3.0	98	197	571	8.6	98	394	719	18.0	138	4724	29361	5.2	98	886	1673
6000-7000	3.1	98	295	492	8.3	98	443	856	11.6	98	3494	28774	3.9	98	591	1674
7000-8000	3.0	98	244	492	7.7	98	492	709	11.3	98	2264	27593	6.3	98	689	1732
8000-9000	2.9	98	197	394	9.9	98	394	591	14.7	197	2736	26707	6.9	148	886	1870
9000-10000	3.1	98	197	394	8.6	98	295	571	14.4	98	1476	25792	11.7	98	492	1240
10000-11000	3.7	98	197	335	9.1	98	197	394	22.7	98	3740	24837	12.3	98	689	1575
11000-12000	2.4	98	197	295	5.9	98	295	443	16.4	98	3547	23636	11.3	98	591	1476
12000-13000	1.6	98	197	295	3.9	98	197	305	13.6	98	8464	22868	7.4	98	886	1378
13000-14000	1.6	98	98	197	3.0	98	197	295	11.7	98	9613	21884	8.1	98	787	1388
14000-15000	0.7	98	98	295	0.9	98	197	197	8.4	812	20210	20801	4.6	98	689	1112
15000-16000	0.9	98	98	295	2.0	98	148	335	7.7	98	19029	19817	5.1	98	492	986
16000-17000	0.3	164	197	230	1.6	98	164	295	6.4	1657	18209	18862	3.7	164	492	1090
17000-18000	0.0				0.6	164	164	164	4.3	1230	17307	17881	3.9	164	492	1017
18000-19000	0.0				1.4	164	164	328	6.9	2280	16076	16897	5.4	164	492	984
19000-20000	0.0				0.1	164	164	164	2.2	1247	15420	15748	0.9	164	410	492

1200Z

FIGURE B-16-3-D

B-261

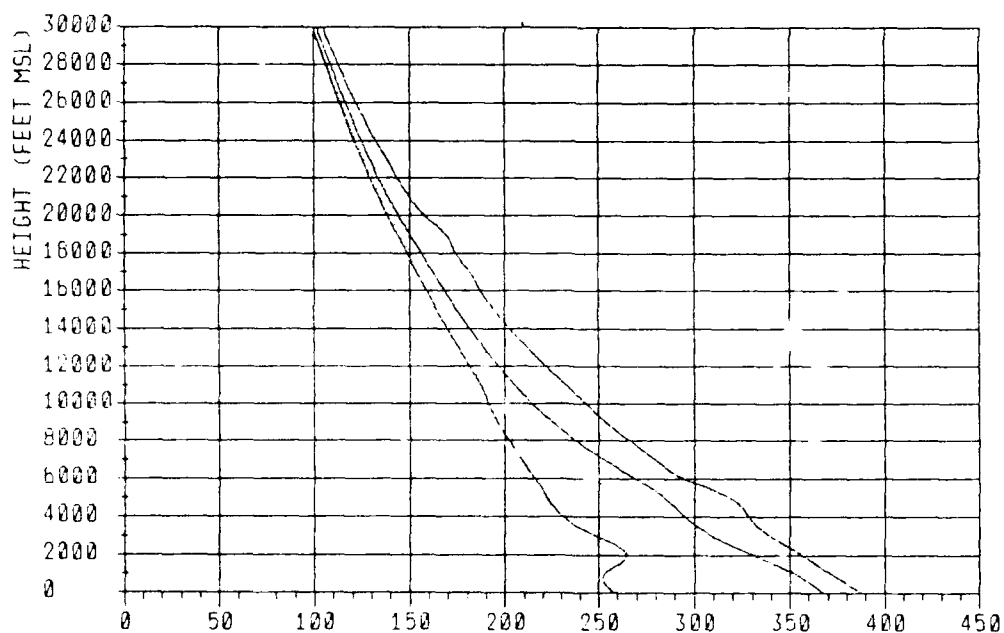
BELEM

DRY-WET TRANSITION

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-16-4-A

B-262

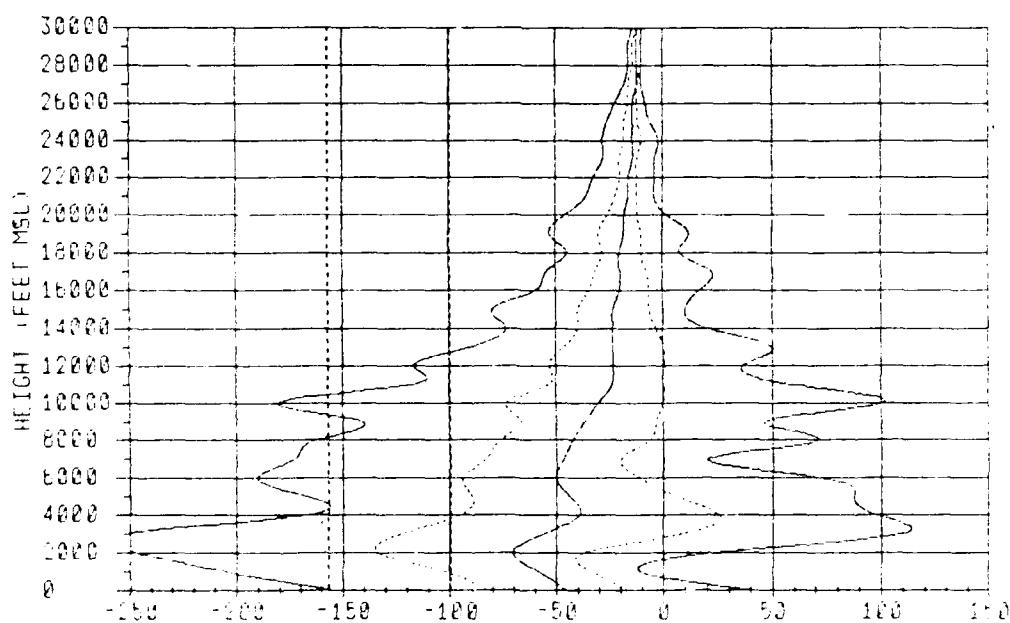
BELEM

DRY-WET TRANSITION

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-16-4-B

B-263

NO DATA AVAILABLE

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNM PERCENTILES				PERCENT DUCT	OCCURRENCE	
		10%	50%	90%	99%		10%	50%	90%	99%		BLR	SUB
0FC-500	259.10	342.50	371.69	381.09	389.69	-147.33	-84.82	-43.75	-8.93	48.77	2.0	7.5	9.0
500-1000	287.07	353.62	364.75	373.22	382.01	-109.58	-72.91	-43.75	-20.44	9.69	0.0	1.6	2.1
1000-1500	328.75	346.37	357.50	366.32	375.43	-213.83	-88.75	-50.00	-29.16	-10.42	2.7	6.4	0.5
1500-2000	316.32	333.37	348.19	358.25	367.49	-205.50	-127.91	-62.50	-33.33	-7.75	7.5	19.8	1.1
2000-2500	303.86	322.50	337.19	347.99	365.24	-288.03	-139.41	-72.91	-39.58	14.50	11.2	24.1	2.7
2500-3000	276.43	306.69	323.30	337.00	352.01	-239.10	-133.33	-72.91	-16.66	33.33	11.8	26.2	9.1
3000-3500	264.95	293.11	312.19	326.21	343.19	-277.49	-138.33	-60.41	6.25	118.16	11.2	19.3	17.1
3500-4000	262.10	282.25	304.19	318.56	350.60	-189.58	-106.25	-47.91	20.63	131.00	6.4	20.3	25.1
4000-4500	244.69	276.64	297.06	312.50	353.02	-176.33	-100.00	-37.50	27.08	84.66	3.2	13.4	26.2
4500-5000	237.23	271.11	292.50	307.45	345.36	-183.91	-89.58	-37.50	27.08	111.79	3.7	10.2	32.1
5000-6000	223.57	261.64	283.50	297.11	323.04	-168.50	-89.58	-43.75	6.25	79.51	3.2	16.6	19.8
6000-7000	215.58	248.20	268.38	282.00	299.99	-200.00	-93.75	-50.00	-9.91	66.22	6.4	17.6	12.3
7000-8000	208.70	227.28	253.00	267.56	280.74	-168.75	-83.33	-47.91	-16.66	27.08	7.5	15.5	8.6
8000-9000	201.37	216.50	236.60	253.20	265.06	-173.36	-76.69	-43.23	-3.26	74.78	7.0	13.4	13.9
9000-10000	195.27	205.70	223.30	239.20	250.56	-139.97	-66.66	-36.71	0.00	47.69	3.2	12.3	18.7
10000-11000	192.14	197.20	212.30	228.70	240.00	-183.33	-73.30	-30.07	0.00	100.00	6.4	13.9	24.1
11000-12000	186.16	190.00	203.10	217.60	229.91	-116.66	-53.28	-23.30	3.39	89.95	2.1	7.0	20.3
12000-13000	180.20	183.70	198.10	208.30	218.83	-114.26	-56.66	-26.56	0.00	36.71	2.1	5.9	16.0
13000-14000	173.96	176.98	186.60	200.00	210.02	-88.08	-46.61	-23.30	0.00	44.72	0.0	3.2	17.1
14000-15000	168.00	170.60	179.40	192.30	200.70	-76.60	-39.97	-23.30	-3.39	16.66	0.0	2.1	12.3
15000-16000	162.40	164.80	172.45	183.90	192.49	-73.30	-39.97	-20.05	-4.64	12.38	0.5	1.1	10.2
16000-17000	157.11	159.70	166.60	177.10	185.27	-55.91	-33.33	-19.92	-5.94	23.93	0.0	0.5	13.4
17000-18000	152.10	154.30	160.35	169.60	179.71	-53.98	-30.00	-20.00	-8.05	17.11	0.0	0.0	8.6
18000-19000	146.70	148.80	154.10	162.50	174.34	-47.77	-28.06	-18.04	-7.97	11.83	0.5	0.5	9.6
19000-20000	141.70	143.40	147.80	155.47	164.96	-51.56	-30.00	-18.04	-11.95	3.98	0.0	0.0	4.3
20000-21000	134.80	138.60	142.20	148.87	156.83	-45.54	-26.01	-17.96	-11.95	0.00	0.0	0.0	3.2
21000-22000	132.30	133.80	137.10	142.50	147.53	-43.51	-22.03	-16.01	-10.00	-2.03	0.0	0.0	1.1
22000-23000	128.00	129.30	132.20	137.10	141.18	-29.53	-20.00	-15.94	-11.95	-3.98	0.0	0.0	0.0
23000-24000	123.20	124.60	127.40	131.70	135.40	-28.04	-20.00	-14.06	-11.95	-3.98	0.0	0.0	1.1
24000-25000	119.20	120.20	122.70	126.10	129.15	-28.04	-18.04	-13.98	-11.95	-4.00	0.0	0.0	2.7
25000-26000	115.20	116.20	118.80	121.30	124.27	-24.06	-17.96	-13.98	-11.95	-4.46	0.0	0.0	0.0
26000-27000	111.50	112.40	114.40	116.80	118.98	-20.00	-16.01	-13.98	-11.95	-8.50	0.0	0.0	0.5
27000-28000	107.30	108.20	110.10	112.30	114.39	-17.96	-14.06	-12.03	-11.95	-10.00	0.0	0.0	0.0
28000-29000	103.80	104.50	106.20	107.80	109.63	-16.01	-13.98	-12.03	-10.00	-10.00	0.0	0.0	0.0
29000-30000	100.50	101.20	102.60	104.10	105.58	-14.06	-12.03	-11.95	-10.00	-10.00	0.0	0.0	0.0
30000-31000	97.20	97.90	99.30	100.70	101.88	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
31000-32000	93.92	94.70	96.00	97.40	98.30	-17.52	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
32000-33000	90.40	91.10	92.60	94.10	94.99	-12.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
33000-34000	87.40	88.00	89.20	90.50	91.20	-12.03	-10.00	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	85.35	85.80	86.70	87.60	88.30	-16.01	-10.00	-10.00	-8.05	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-16-4-C

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT NSL	XFRG	DUCTS THK PERCENTILES			XFRG	SALTS THK PERCENTILES			XFRG	NORMAL THK PERCENTILES			XFRG	DUD THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
8FC-500	2.0	46	243	243	7.5	44	243	577	98.0	1006	2999	35218	9.0	162	341	699
500-1000	0.0				0.5	1083	1083	1083	2.1	98	2458	13189	1.1	295	344	394
1000-1500	2.7	394	884	884	5.3	98	884	1841	0.5	10234	10234	10234	0.0			
1500-2000	5.3	197	394	679	15.0	98	884	1476	2.7	489	1181	11221	1.1	295	443	591
2000-2500	7.5	244	541	938	10.2	98	591	1083	8.4	98	1919	19272	2.1	591	1329	2441
2500-3000	5.9	394	689	864	10.2	98	591	984	11.2	98	1083	7418	7.0	649	1083	1732
3000-3500	5.3	108	394	571	9.4	98	394	918	12.3	98	884	10649	8.4	98	884	1850
3500-4000	2.1	295	394	591	14.4	98	394	1083	19.3	98	1033	7754	11.2	512	1083	1811
4000-4500	1.6	394	591	689	5.3	98	492	938	9.6	98	787	30939	7.5	98	787	1949
4500-5000	2.1	295	492	787	5.3	108	244	659	24.7	98	3494	25998	13.4	167	591	1949
5000-6000	2.1	295	295	591	11.8	325	591	854	16.4	98	2313	29541	5.9	98	984	1929
6000-7000	5.9	98	394	492	11.2	98	394	489	18.2	98	2067	14823	3.2	591	689	1083
7000-8000	4.8	98	295	492	10.2	98	295	492	13.9	98	2889	14410	4.4	254	787	2323
8000-9000	5.3	98	295	482	11.2	98	344	489	18.2	98	1949	24175	8.4	98	837	1870
9000-10000	2.7	98	295	295	10.2	98	197	591	15.0	98	787	25444	12.3	98	492	1132
10000-11000	5.9	98	197	492	12.8	98	197	394	25.1	98	3394	24844	12.3	98	689	1494
11000-12000	1.6	98	295	295	4.4	98	295	443	15.8	98	8478	23823	11.8	98	984	1575
12000-13000	1.6	98	98	197	4.3	98	197	492	16.0	98	4063	22839	8.0	98	738	1408
13000-14000	0.0				2.1	98	197	197	13.9	98	21047	21487	10.2	98	591	1181
14000-15000	0.0				2.1	98	197	197	12.3	98	20063	20801	5.3	98	394	1161
15000-16000	0.5	98	98	98	0.5	197	197	197	5.3	98	11434	19817	7.5	98	673	1043
16000-17000	0.0				0.0				9.1	1070	18373	18832	7.5	230	454	1378
17000-18000	0.0				0.0				7.5	244	17307	17799	4.8	164	492	1148
18000-19000	0.8	164	164	164	0.5	164	164	164	8.4	295	5413	16470	4.4	164	492	771
19000-20000	0.0				0.0				3.2	15092	18420	15584	2.7	164	328	684

1200Z

FIGURE B-16-4-D

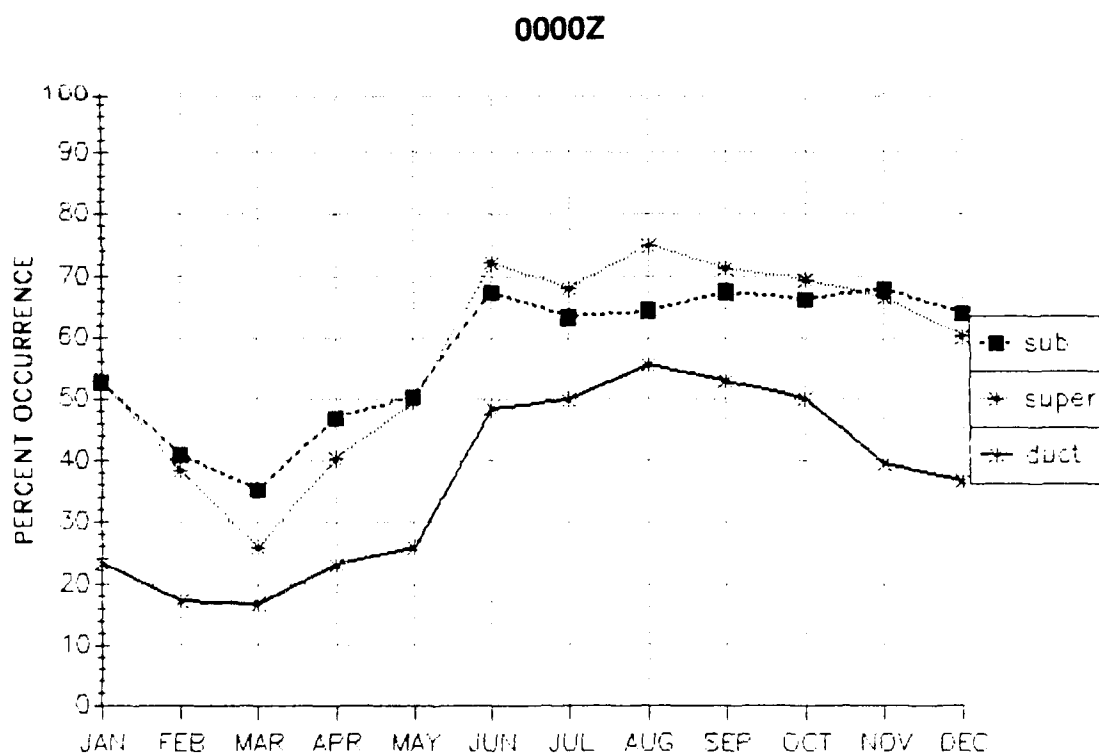
B-265

BELEM

MONTHLY

AP PERCENT OCCURRENCE FREQUENCY

NO DATA AVAILABLE



1200Z

FIGURE B-16-5

B-266

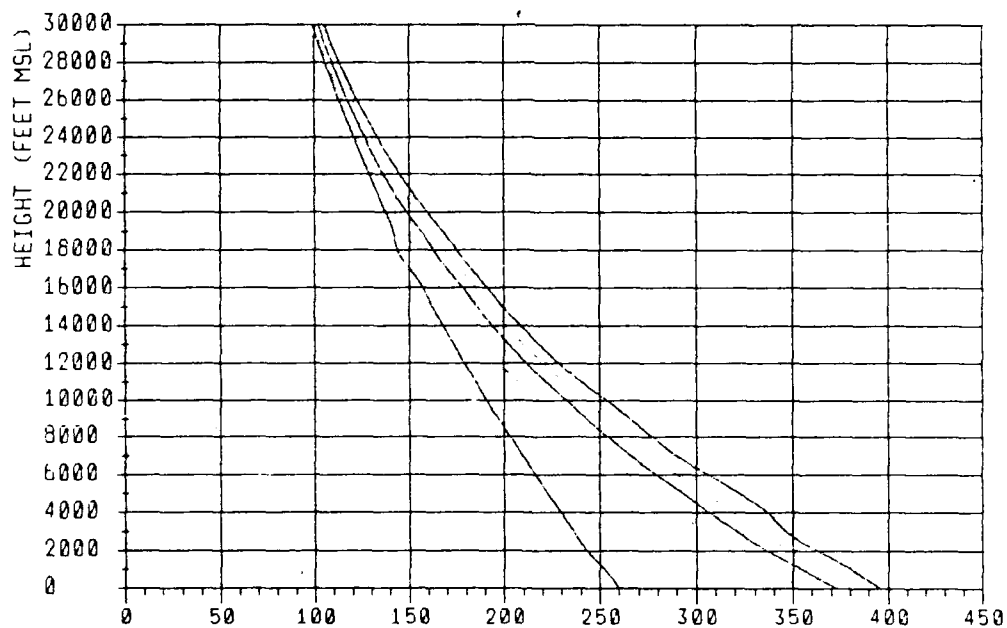
MANAUS

WET SEASON

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

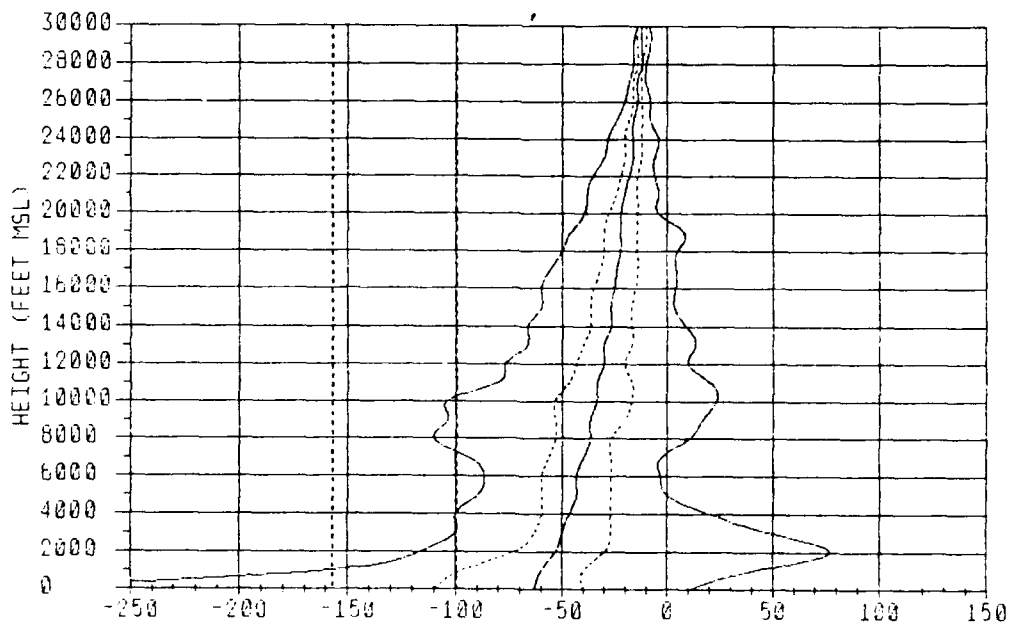
FIGURE B-17-1-A

B-267

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-17-1-B

MANAUS

WET SEASON

NO DATA AVAILABLE

0000Z

HT FT MSL	1%	N PERCENTILES				1%	DNM PERCENTILES				PERCENT OCCURRENCE		
		10%	50%	90%	99%		10%	50%	90%	99%	DUCT	SLR	SUB
SFC-500	262.25	365.69	378.06	388.50	399.19	-458.31	-125.00	-64.58	-27.08	100.12	15.1	26.7	6.6
500-1000	257.66	355.57	369.69	380.06	390.88	-160.41	-100.00	-62.50	-29.58	0.00	2.6	10.2	1.4
1000-1500	253.87	343.61	359.88	370.56	380.92	-185.96	-100.00	-61.50	-42.50	-3.62	1.8	10.0	1.2
1500-2000	248.98	332.88	349.88	360.88	372.75	-152.42	-93.75	-58.33	-29.58	-6.25	1.8	8.8	1.1
2000-2500	244.39	323.56	340.75	351.75	364.01	-122.91	-79.16	-54.16	-33.33	-6.25	0.13	4.8	1.0
2500-3000	240.39	315.19	331.69	342.88	354.70	-106.25	-70.83	-50.00	-21.25	0.00	0.13	2.4	1.7
3000-3500	236.59	307.00	323.38	334.06	345.25	-102.08	-64.58	-50.00	-29.16	4.17	0.1	1.6	1.6
3500-4000	233.09	300.69	316.06	326.69	337.88	-95.83	-60.41	-47.91	-27.08	10.42	0.1	1.2	2.1
4000-4500	229.69	294.25	308.88	319.38	331.89	-91.79	-58.33	-45.83	-27.08	10.42	0.1	1.1	1.9
4500-5000	226.56	288.00	302.19	312.49	325.11	-102.89	-60.41	-43.75	-27.08	12.50	1.0	1.5	2.0
5000-6000	221.10	276.88	291.25	302.69	315.43	-87.50	-60.41	-43.75	-27.08	-7.73	0.1	1.0	1.4
6000-7000	214.40	263.75	277.88	288.25	297.93	-90.14	-58.33	-41.66	-27.08	-4.17	0.1	1.7	1.0
7000-8000	208.20	251.10	265.38	275.50	285.25	-93.36	-54.16	-39.58	-27.08	-3.26	0.6	1.8	2.1
8000-9000	201.17	238.10	252.80	262.75	273.38	-106.77	-52.25	-36.71	-23.30	13.28	1.1	2.0	2.4
9000-10000	194.78	225.80	241.10	250.40	261.40	-100.00	-50.00	-36.59	-20.05	19.92	0.6	2.1	2.1
10000-11000	188.50	215.40	230.50	239.40	249.49	-103.17	-50.00	-33.33	-16.66	16.66	1.6	2.1	2.4
11000-12000	182.32	205.40	219.70	226.30	236.70	-79.95	-46.61	-33.33	-19.92	12.41	0.4	1.1	2.1
12000-13000	176.70	195.60	209.70	217.70	225.77	-73.30	-40.10	-29.95	-19.92	10.00	0.4	1.0	2.6
13000-14000	171.10	187.30	200.40	206.00	215.20	-66.66	-36.71	-26.69	-16.66	10.00	0.1	0.8	2.4
14000-15000	165.60	179.20	191.80	198.80	205.00	-63.28	-36.71	-26.69	-16.66	6.64	0.0	0.7	2.4
15000-16000	160.40	171.90	183.70	190.50	196.20	-60.02	-36.59	-26.69	-16.66	3.26	0.4	0.3	2.6
16000-17000	155.40	165.10	176.80	182.70	188.10	-56.74	-33.98	-24.06	-15.04	6.02	0.0	0.1	2.9
17000-18000	150.40	158.50	168.10	174.50	179.48	-51.95	-31.95	-23.98	-13.98	2.01	0.0	0.2	2.9
18000-19000	145.20	152.20	160.50	166.50	171.39	-47.96	-30.00	-22.03	-13.98	0.97	0.0	0.1	4.7
19000-20000	140.60	146.00	153.20	158.90	165.40	-41.95	-28.04	-22.03	-13.98	-1.95	0.0	0.0	2.0
20000-21000	136.10	140.30	146.70	152.10	156.30	-40.00	-26.01	-20.00	-13.98	-4.36	0.0	0.1	2.5
21000-22000	131.90	135.20	140.80	145.60	149.50	-37.96	-23.96	-18.04	-13.98	-5.60	0.1	0.1	2.1
22000-23000	127.67	130.40	135.10	139.70	143.30	-33.98	-22.03	-17.96	-12.03	-6.02	0.1	0.1	2.0
23000-24000	122.80	125.30	129.50	133.80	137.10	-30.00	-20.00	-16.01	-12.03	-5.44	0.1	0.0	2.7
24000-25000	118.70	120.90	124.30	128.00	130.80	-27.96	-18.04	-16.01	-11.95	-6.02	0.0	0.0	1.2
25000-26000	114.80	116.80	119.70	123.00	125.45	-22.03	-17.96	-14.06	-11.95	-7.97	0.0	0.1	0.4
26000-27000	111.10	112.80	115.40	118.20	120.30	-20.00	-16.01	-13.98	-11.95	-8.95	0.0	0.1	0.1
27000-28000	106.91	108.60	111.00	113.60	115.50	-18.04	-16.01	-13.98	-11.95	-10.00	0.0	0.0	0.1
28000-29000	102.50	104.90	106.80	108.90	110.40	-16.01	-13.98	-13.98	-10.00	-8.95	0.0	0.0	0.1
29000-30000	99.90	101.40	103.20	105.00	106.30	-16.01	-13.98	-12.03	-10.00	-8.95	0.0	0.0	0.0
30000-31000	96.55	98.10	99.70	101.50	102.50	-14.06	-12.03	-11.95	-10.00	-7.97	0.1	0.0	0.2
31000-32000	93.30	94.70	96.20	97.90	98.90	-12.03	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.4
32000-33000	89.70	91.00	92.60	94.20	95.20	-13.30	-12.03	-10.00	-10.00	-6.05	0.1	0.0	0.7
33000-34000	86.40	87.90	89.20	90.60	91.30	-15.94	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	84.10	85.70	86.60	87.60	88.10	-18.04	-11.95	-10.00	-10.00	-7.97	0.0	0.0	0.0

1200Z

FIGURE B-17-1-C

B-269

MANAUS

WET SEASON

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	%FRQ	DUCTS THK PERCENTILES			%FRQ	SRAPS THK PERCENTILES			%FRQ	NORMAL THK PERCENTILES			%FRQ	SUB THK PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
9FC-500	13.4	20	20	167	26.7	20	118	984	90.1	610	34877	34995	6.7	20	98	541
500-1000	1.8	118	492	591	4.8	98	541	1004	6.3	98	8711	34571	0.7	98	443	591
1000-1500	1.4	295	591	689	5.4	98	492	1024	8.2	1870	18948	34089	0.8	98	394	2165
1500-2000	0.8	197	594	1087	3.5	98	492	856	7.2	689	29250	33695	0.7	98	591	2756
2000-2500	0.5	197	594	491	1.7	98	443	1055	4.7	187	32809	33265	0.5	295	640	1476
2500-3000	0.5	98	295	295	0.9	98	295	856	2.3	98	15814	32613	0.8	148	1673	2146
3000-3500	0.0				0.8	108	591	866	1.3	167	17717	32051	0.6	98	1230	1575
3500-4000	0.3	98	246	886	0.5	98	394	591	1.5	98	7185	31421	0.8	98	689	1181
4000-4500	0.1	295	295	295	0.8	98	394	689	1.0	98	5315	30929	0.5	98	295	689
4500-5000	1.0	157	295	394	1.3	98	197	827	4.4	98	14584	30749	2.0	98	295	1004
5000-6000	0.2	295	443	591	0.6	98	197	591	2.2	197	7283	29955	0.7	98	295	1378
6000-7000	0.6	98	295	295	1.7	98	295	689	1.8	1240	11155	28682	1.1	98	736	1181
7000-8000	0.6	98	197	394	1.0	98	394	650	3.7	177	11910	27986	1.3	98	787	1831
8000-9000	1.2	96	246	640	2.6	96	443	689	4.8	98	1772	26422	2.8	98	689	1575
9000-10000	0.8	98	197	492	1.7	98	394	689	4.3	98	1722	25821	4.3	98	394	1087
10000-11000	1.6	98	197	394	2.0	96	295	581	8.0	98	7382	24955	3.9	98	787	1575
11000-12000	0.7	98	95	397	0.9	118	394	571	3.9	96	23065	27754	1.8	157	591	1457
12000-13000	0.4	98	98	295	0.8	98	246	394	3.1	98	22277	22868	2.7	98	736	1545
13000-14000	0.1	95	95	95	0.7	98	148	394	2.8	96	1426	21815	2.1	95	689	1476
14000-15000	0.7	98	197	197	0.6	98	295	394	2.8	98	14764	20713	1.8	98	492	1319
15000-16000	0.4	98	98	295	0.2	98	197	295	2.6	197	19725	19895	1.9	98	591	1280
16000-17000	0.2	164	164	164	0.2	171	164	295	2.9	219	18045	18852	2.4	164	536	984
17000-18000	0.7	164	164	164	0.2	164	328	492	3.1	1172	17215	17981	2.1	164	328	1198
18000-19000	1.2	164	164	164	0.2	164	164	164	4.6	951	15912	16427	4.1	164	492	984
19000-20000	0.2	164	164	164	0.0				2.6	2592	15256	15748	1.2	164	410	902

1200Z

FIGURE B-17-1-D

B-270

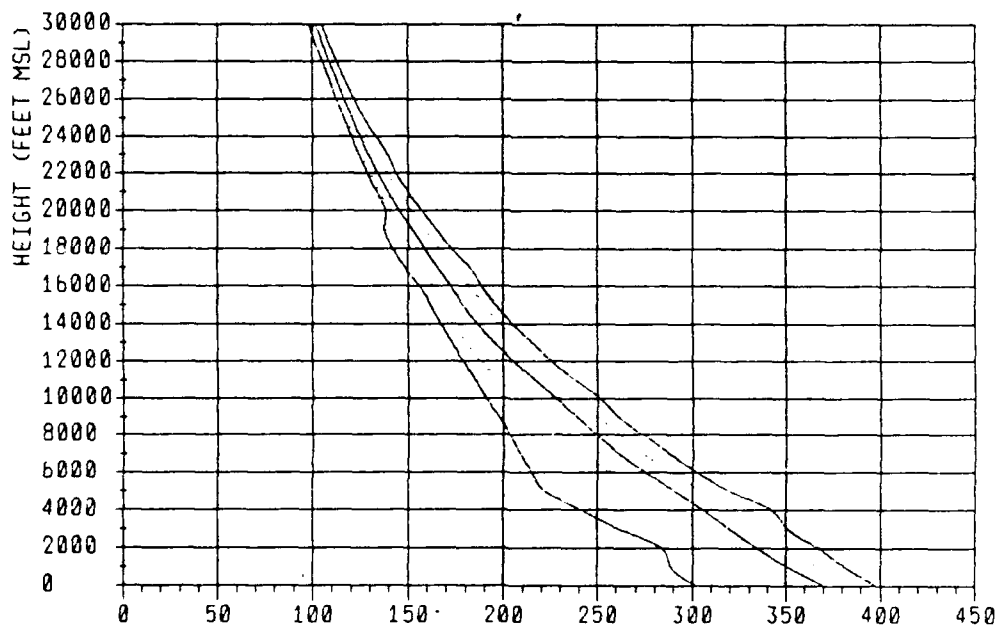
MANAUS

WET-DRY TRANSITION

N PERCENTILES

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

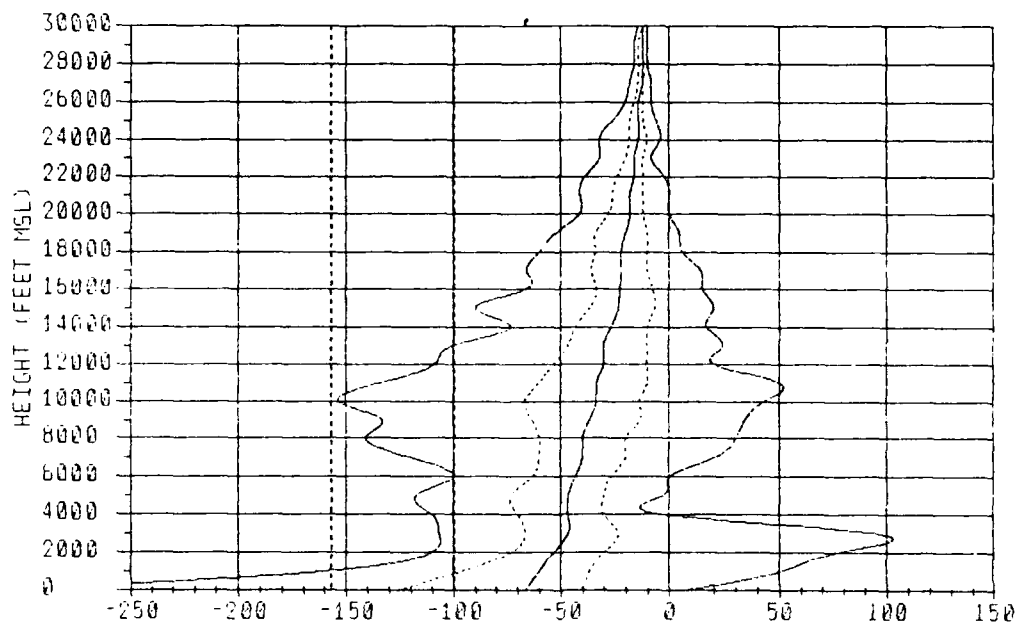
FIGURE B-17-2-A

B-271

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units) 0000Z



DNDH (N-Units) 1200Z

FIGURE B-17-2-B

NO DATA AVAILABLE

0000Z

HGT FT MSL	N PERCENTILES					DNDW PERCENTILES					APPROXIMATE OCCURRENCE			
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	100%	50%	25%	10%
500-1000	262.75	362.87	375.88	388.74	399.96	-371.66	-135.41	-64.58	-29.16	62.55	12.5	25.6	6.2	
1000-1500	259.51	351.49	366.50	379.38	392.55	-218.00	-118.75	-66.66	-59.58	61.25	5.6	19.1	2.8	
1500-2000	255.59	338.00	355.25	369.56	382.30	-189.00	-104.16	-60.41	-57.50	17.50	2.0	14.5	1.4	
2000-2500	248.80	328.69	346.19	360.19	374.47	-152.50	-87.50	-56.25	-51.25	-61.25	1.0	7.5	1.4	
2500-3000	244.84	311.50	337.56	351.04	368.95	-116.66	-77.08	-52.08	-51.25	-12.50	0.5	4.9	1.0	
3000-3500	240.73	312.87	329.58	342.25	363.61	-100.00	-70.83	-50.00	-27.08	14.58	0.0	1.7	2.1	
3500-4000	236.36	304.27	321.56	335.67	351.69	-108.71	-66.66	-47.91	-27.08	35.41	0.0	1.4	2.6	
4000-4500	232.60	297.27	314.56	326.19	342.25	-105.51	-64.58	-45.83	-27.08	22.91	0.0	2.1	2.1	
4500-5000	228.46	291.37	307.75	319.19	337.42	-102.08	-64.58	-45.83	-29.16	-14.58	1.0	1.4	1.0	
5000-5500	223.91	284.65	301.00	311.50	324.43	-116.66	-60.75	-45.83	-29.16	14.58	1.0	2.2	2.1	
5500-6000	218.10	278.58	288.56	301.00	314.12	-118.75	-70.83	-45.83	-27.08	-5.58	0.7	4.5	1.0	
6000-7000	210.46	255.08	273.50	286.06	296.25	-98.37	-62.50	-47.91	-24.68	31.28	0.7	2.7	2.1	
7000-8000	203.50	240.99	260.75	272.88	285.40	-126.69	-58.33	-39.58	-20.83	19.95	1.4	4.5	4.9	
8000-9000	196.84	227.09	248.40	260.19	275.21	-139.97	-56.77	-36.71	-19.92	26.64	2.1	3.7	6.6	
9000-10000	189.34	215.90	236.80	247.90	256.90	-133.33	-63.30	-36.59	-15.28	36.71	2.4	2.9	7.7	
10000-11000	182.66	205.90	225.50	236.80	247.12	-144.82	-66.66	-33.33	-15.28	45.25	2.8	2.2	11.1	
11000-12000	176.20	194.40	214.40	225.40	232.75	-127.77	-56.64	-30.07	-10.05	37.76	2.8	6.6	10.4	
12000-13000	169.46	185.41	205.80	214.70	220.52	-100.00	-50.00	-29.95	-10.05	26.67	0.7	2.8	7.5	
13000-14000	162.50	178.50	195.60	205.00	211.46	-97.66	-46.61	-26.65	-10.05	21.06	0.7	2.8	6.7	
14000-15000	157.24	172.50	185.30	195.70	200.90	-74.03	-39.97	-26.56	-6.77	24.06	0.0	1.7	7.6	
15000-16000	151.66	167.20	177.40	187.50	192.50	-83.33	-36.71	-27.50	-6.77	15.41	0.0	1.7	5.2	
16000-17000	146.45	161.80	171.20	180.10	185.70	-62.01	-33.98	-23.46	-9.24	15.94	0.7	1.7	6.7	
17000-18000	141.07	155.65	164.20	171.70	177.50	-66.01	-36.01	-23.05	-10.00	13.50	0.0	0.7	6.5	
18000-19000	136.11	149.40	156.60	164.00	169.09	-55.09	-32.05	-20.00	-10.00	6.02	0.0	1.4	5.2	
19000-20000	130.51	144.00	149.70	156.70	161.19	-46.01	-30.00	-20.00	-11.95	0.00	0.0	0.4	1.0	
20000-21000	126.01	138.80	143.60	149.90	154.87	-38.04	-26.01	-18.04	-11.95	0.00	0.0	0.0	2.5	
21000-22000	121.61	134.00	138.00	143.60	147.89	-49.60	-26.01	-17.96	-11.95	-2.98	0.4	0.0	1.4	
22000-23000	117.41	129.40	132.60	137.60	141.59	-33.98	-22.05	-16.01	-11.95	-4.06	0.4	0.2	0.4	
23000-24000	113.79	124.50	127.60	131.90	136.20	-28.26	-18.04	-14.06	-11.95	-4.06	0.0	0.4	0.7	
24000-25000	109.80	120.20	122.80	126.50	130.10	-30.00	-18.04	-13.98	-11.95	-2.98	0.7	0.7	1.0	
25000-26000	105.10	116.20	118.50	121.50	124.40	-22.05	-17.96	-13.98	-11.95	-2.97	0.0	0.0	0.4	
26000-27000	101.50	112.30	114.50	116.90	119.40	-18.04	-16.01	-13.98	-11.95	-2.97	0.0	0.0	0.4	
27000-28000	97.96	108.10	110.50	112.70	114.60	-17.96	-14.06	-12.05	-10.39	-10.00	0.0	0.0	0.4	
28000-29000	94.00	104.50	106.50	108.50	110.60	-16.01	-13.98	-12.05	-10.00	-2.97	0.0	0.0	0.0	
29000-30000	90.79	101.10	102.80	104.50	106.00	-16.01	-12.05	-11.95	-10.00	-10.00	0.0	0.0	0.0	
30000-31000	87.60	97.80	99.40	101.00	102.10	-14.06	-12.05	-10.00	-10.00	-2.97	0.0	0.0	0.0	
31000-32000	84.56	94.60	96.10	97.70	98.60	-16.26	-12.05	-10.00	-10.00	-2.97	0.0	0.0	0.0	
32000-33000	81.62	91.00	92.60	94.20	95.00	-12.05	-12.05	-10.00	-10.00	-2.97	0.0	0.0	0.0	
33000-34000	78.36	87.90	89.20	90.60	91.20	-13.98	-11.95	-10.00	-10.00	-2.97	0.0	0.0	0.0	
34000-35000	75.74	85.70	86.70	87.60	88.20	-18.04	-11.95	-10.00	-8.05	-2.97	0.0	0.0	0.0	

1200Z
FIGURE B-17-2-C

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT MSL	XPRD	DUCTS TH PERCENTILES			XPRD	SALTS TH PERCENTILES			XPRD	NORMAL TH PERCENTILES			XPRD	SUB TH PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
IPC-500	12.5	20	118	610	22.6	20	217	1189	98.3	217	11172	34995	6.2	20	118	421
IPC-1000	21.8	295	442	886	6.9	98	492	866	9.4	98	10945	34581	1.7	197	295	1083
IPC-1500	0.7	295	394	492	4.2	98	246	925	9.0	98	8218	33922	0.7	295	492	689
IPC-2000	0.7	98	344	591	3.5	98	492	945	7.6	1021	12187	32690	0.7	794	492	591
IPC-2500	0.0				0.7	98	640	1181	4.9	98	5857	33154	0.1	2756	2756	2756
IPC-3000	0.0				0.7	98	492	806	1.7	98	4528	32418	1.7	492	904	1161
IPC-3500	0.0				0.7	295	591	886	1.0	98	11516	31924	0.7	98	794	689
IPC-4000	0.0				1.0	197	295	886	2.6	98	9744	31330	0.0	98	98	98
IPC-4500	1.0	295	492	591	0.7	394	689	984	1.0	886	3839	3216	0.7	591	689	787
IPC-5000	1.4	197	295	295	1.1	98	98	689	4.2	98	4771	30655	1.0	295	904	1673
IPC-6000	0.7	197	344	492	3.5	226	689	866	6.5	374	5515	30150	0.0	295	295	295
IPC-7000	0.0	295	295	295	0.7	492	591	689	2.0	1078	3789	28675	1.7	689	886	2264
IPC-8000	1.4	197	246	295	2.6	98	246	819	3.1	98	3529	27886	1.0	98	295	1775
IPC-9000	2.1	98	295	394	5.2	98	591	646	9.4	98	1260	26471	4.9	98	197	1563
IPC-10000	2.4	98	394	394	4.5	98	295	630	10.6	98	1969	26018	7.0	98	295	1083
IPC-11000	1.1	98	197	394	4.9	98	344	630	13.5	98	3247	24857	7.6	98	394	1516
IPC-12000	2.0	98	295	394	5.9	98	295	417	12.5	98	3448	23813	8.8	98	295	1280
IPC-13000	0.0	98	98	98	2.4	197	295	492	8.0	98	3740	23514	3.5	98	787	1280
IPC-14000	0.7	295	295	295	2.0	98	246	394	6.6	98	21096	21765	5.2	98	787	1476
IPC-15000	0.0				1.0	98	98	197	5.9	98	6939	20791	3.5	98	689	1312
IPC-16000	0.0				1.7	98	197	295	5.2	98	19325	19837	3.1	98	787	1076
IPC-17000	0.0	164	164	164	0.0	164	164	164	4.9	689	18291	18931	4.5	144	931	1247
IPC-18000	0.0				0.0	164	164	164	6.0	2395	17553	17881	3.8	197	492	1542
IPC-19000	0.0				1.4	164	164	164	5.9	820	15912	15682	4.2	164	528	853
IPC-20000	0.0				0.4	164	164	164	1.6	15092	15420	15748	1.1	164	492	656

1200Z

FIGURE B-17-2-D

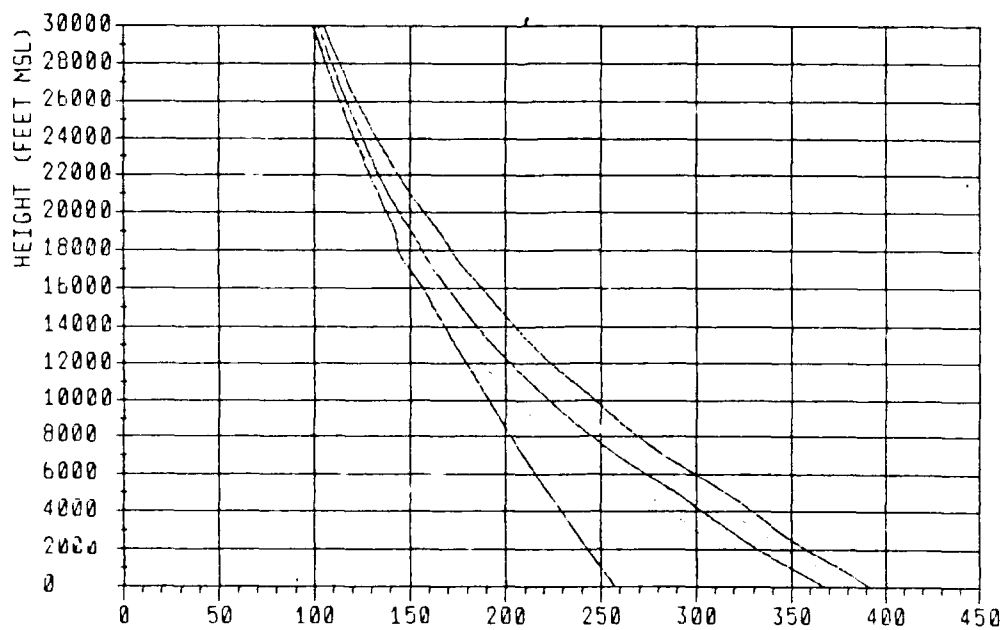
MANAUS

N PERCENTILES

DRY SEASON

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

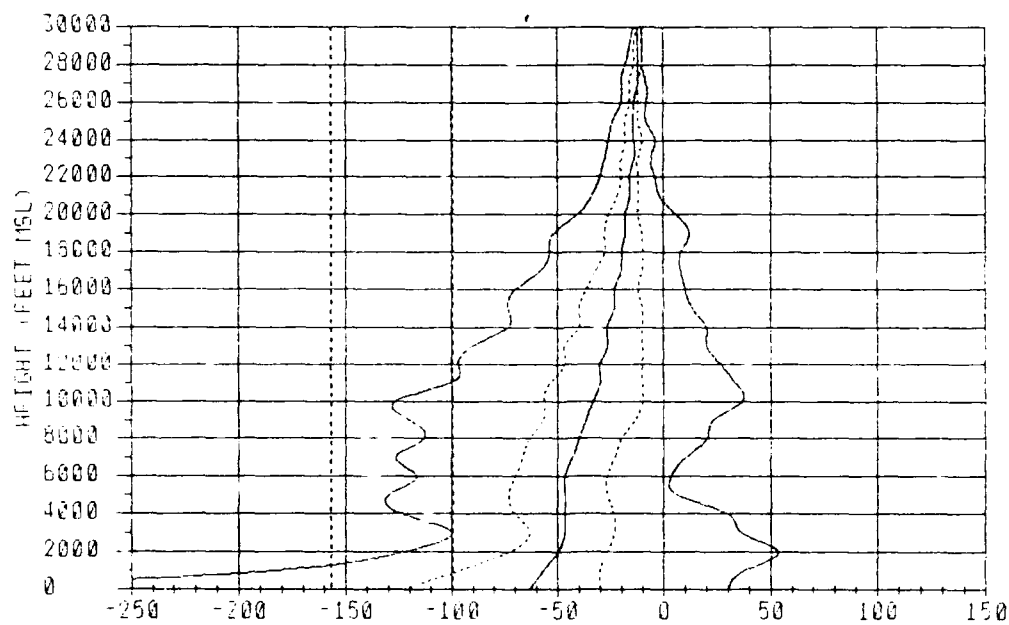
FIGURE B-17-3-A

B-275

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-17-3-B

MANAUS

DRY SEASON

NO DATA AVAILABLE

0000Z

HGT FT MSL	1%	N PERCENTILES				1%	DNDR PERCENTILES				PERCENT DIFFERENCE		
		10%	50%	90%	99%		10%	50%	90%	99%	DIFF	GRD	SLR
SFC-500	259.87	259.14	273.06	285.19	296.19	-4.6.25	-142.75	-62.50	-18.75	-14.75	0.4	2.4	1.0
500-1000	255.74	247.50	264.19	276.87	286.45	-220.00	-112.50	-62.50	-29.16	-20.97	0.6	1.6	1.0
1000-1500	251.64	235.25	254.19	267.36	276.94	-194.91	-106.15	-60.41	-31.25	-20.68	4.1	1.6	1.0
1500-2000	247.80	235.75	244.25	258.36	268.50	-172.91	-91.66	-50.25	-29.16	-20.16	0.4	0.9	1.0
2000-2500	244.10	217.75	235.75	249.19	259.64	-155.55	-77.08	-50.00	-27.08	-18.41	0.6	1.0	1.0
2500-3000	240.10	209.88	227.19	241.75	250.74	-136.25	-66.66	-47.91	-26.69	-18.77	1.0	1.4	1.0
3000-3500	236.60	202.54	219.15	233.36	241.26	-91.65	-64.56	-45.61	-25.00	-18.00	1.4	1.4	1.0
3500-4000	233.25	205.75	212.19	225.06	231.80	-108.33	-64.56	-43.75	-23.50	-18.00	1.4	1.4	1.0
4000-4500	229.86	209.50	209.50	218.00	227.56	-118.66	-66.66	-43.75	-23.50	-18.00	1.4	1.4	1.0
4500-5000	226.50	202.75	208.88	218.72	227.54	-141.66	-70.87	-43.75	-23.44	-20.46	1.0	1.4	1.0
5000-6000	220.23	209.88	207.00	209.88	211.50	-125.00	-75.00	-45.83	-27.08	-1.00	0.9	1.4	1.0
6000-7000	213.60	210.11	211.86	204.56	207.88	-116.66	-70.61	-43.75	-27.08	-1.00	1.0	1.4	1.0
7000-8000	207.30	208.80	207.50	200.56	209.50	-125.00	-68.40	-43.75	-25.50	-0.77	1.0	1.4	1.0
8000-9000	200.44	224.50	147.50	207.00	206.33	-111.36	-66.02	-79.97	-29.97	-14.77	1.0	1.4	1.0
9000-10000	194.50	212.31	231.70	244.20	257.81	-119.92	-56.64	-70.59	-12.08	-20.57	1.0	1.4	1.0
10000-11000	188.40	202.80	220.50	235.50	242.70	-125.50	-59.89	-73.50	-13.50	-21.77	0.0	0.0	1.0
11000-12000	182.51	192.80	209.90	222.80	231.40	-100.00	-50.00	-50.00	-10.00	-20.68	1.4	0.0	1.0
12000-13000	177.10	185.70	200.40	212.50	220.40	-96.61	-46.74	-29.95	-10.00	-20.68	0.0	0.0	1.0
13000-14000	171.10	178.40	191.20	203.10	210.90	-88.71	-45.36	-26.69	-10.00	-10.66	0.0	0.0	1.0
14000-15000	166.00	171.70	182.60	194.50	201.52	-73.50	-39.97	-26.56	-10.00	-10.55	0.0	0.0	1.0
15000-16000	160.77	165.60	175.00	186.10	192.90	-73.50	-36.71	-23.50	-15.28	-10.81	0.0	0.0	1.0
16000-17000	155.44	159.90	167.70	178.10	184.90	-67.18	-35.98	-22.00	-11.95	-7.67	0.0	0.0	1.0
17000-18000	150.50	154.20	160.60	170.00	176.20	-60.00	-30.00	-20.00	-10.00	-10.00	0.0	0.0	1.0
18000-19000	145.30	148.50	154.10	162.50	168.60	-56.01	-30.00	-18.04	-10.00	-12.12	0.0	0.0	1.0
19000-20000	140.60	143.30	147.90	155.30	160.80	-47.96	-27.96	-17.96	-12.00	-4.06	0.0	0.0	1.0
20000-21000	136.18	138.50	142.50	148.75	153.80	-38.04	-24.06	-16.01	-12.03	-1.50	0.0	0.0	1.0
21000-22000	131.70	133.70	137.20	142.90	147.52	-32.00	-22.03	-16.01	-12.03	-3.98	0.0	0.0	1.0
22000-23000	127.50	129.40	132.40	137.50	142.00	-30.00	-20.00	-15.94	-11.95	-3.98	0.0	0.0	1.0
23000-24000	122.80	124.70	127.60	131.80	136.00	-28.04	-18.04	-13.98	-11.95	-3.96	0.0	0.0	1.0
24000-25000	118.60	120.40	123.00	126.50	129.90	-26.01	-18.04	-13.98	-11.95	-6.02	0.0	0.0	1.0
25000-26000	114.80	116.40	118.70	121.70	124.70	-22.00	-16.01	-13.98	-11.95	-7.97	0.0	0.0	1.0
26000-27000	111.70	112.60	114.70	117.20	119.70	-20.00	-16.01	-13.98	-11.95	-7.97	0.0	0.0	1.0
27000-28000	106.90	108.40	110.50	112.90	115.00	-18.04	-14.06	-12.03	-11.95	-8.05	0.0	0.0	1.0
28000-29000	103.20	104.70	106.50	108.40	110.10	-16.01	-13.98	-12.03	-10.00	-10.00	0.0	0.0	1.0
29000-30000	99.52	101.30	102.90	104.60	106.00	-16.01	-13.98	-11.95	-10.00	-10.00	0.0	0.0	1.0
30000-31000	96.10	98.00	99.50	101.10	102.20	-14.06	-12.03	-11.95	-10.00	-7.97	0.0	0.0	1.0
31000-32000	91.90	94.70	96.10	97.70	98.60	-11.95	-12.03	-11.95	-10.00	-7.97	0.0	0.0	1.0
32000-33000	88.40	91.00	92.60	94.20	95.10	-12.03	-12.03	-10.00	-10.00	-7.97	0.0	0.0	1.0
33000-34000	85.10	87.90	89.60	90.50	91.23	-11.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	1.0
34000-35000	82.70	85.70	86.60	87.60	88.20	-17.96	-11.95	-10.00	-8.05	-7.97	0.0	0.0	1.0

1200Z
FIGURE B-17-3-C
B-277

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT. MSL	%PRD	DUCTS THK. PERCENTILES			%PRD	SHIPS THK. PERCENTILES			%PRD	NORMAL THK. PERCENTILES			%PRD	SUB THK. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-500	16.3	20	118	492	27.7	20	118	866	89.8	118	10126	34965	10.6	20	118	492
500-1000	3.1	295	394	807	6.9	98	492	984	10.2	98	8168	24482	1.7	118	394	886
1000-1500	2.1	197	394	866	5.6	98	394	1122	10.2	2101	9282	2797	1.1	98	591	1116
1500-2000	1.0	98	295	896	2.4	98	591	1043	7.4	98	6717	22469	1.2	295	737	2146
2000-2500	0.5	98	295	591	1.6	98	197	984	5.2	1713	10926	22202	1.1	246	837	1934
2500-3000	0.1	492	492	492	0.7	98	98	984	2.2	98	7480	22612	0.5	98	395	1870
3000-3500	0.3	197	295	984	0.6	46	689	1067	0.6	98	1939	27349	0.7	98	394	1575
3500-4000	0.3	197	447	689	1.2	98	591	925	1.3	98	4772	21532	0.7	98	886	1260
4000-4500	0.2	98	591	591	1.4	98	492	1084	1.8	128	4527	20998	0.7	98	394	1026
4500-5000	2.0	98	295	591	4.2	98	295	866	5.6	305	5758	20249	2.0	98	295	807
5000-6000	1.1	98	295	591	3.4	98	591	866	6.6	315	5216	20053	1.3	98	443	2016
6000-7000	1.1	98	295	512	3.1	98	492	787	4.6	98	6496	28794	2.1	98	689	1776
7000-8000	1.2	98	197	492	3.7	98	394	787	5.8	98	6791	27790	1.9	98	689	1535
8000-9000	1.1	98	197	394	3.5	98	492	591	6.1	98	3691	26932	4.5	98	338	1476
9000-10000	1.2	98	295	394	3.9	98	394	610	6.8	98	5494	25722	5.7	128	591	1230
10000-11000	0.1	98	197	335	5.4	98	295	472	13.7	98	7282	24975	6.6	98	689	1181
11000-12000	1.3	98	197	395	7.1	98	197	394	7.8	98	4827	22754	6.1	98	689	1280
12000-13000	0.2	197	197	295	0.6	98	197	492	7.9	98	6237	22868	4.6	98	689	1539
13000-14000	0.9	96	96	197	2.0	98	197	394	7.7	98	18991	21884	4.5	98	591	1280
14000-15000	0.2	98	197	197	0.8	98	197	195	5.6	98	20260	20801	4.1	98	394	1280
15000-16000	0.7	98	98	197	1.0	98	197	295	5.3	98	7249	19817	3.0	98	394	1030
16000-17000	0.2	98	121	164	0.8	98	164	164	4.0	101	18045	18822	3.4	164	656	1080
17000-18000	0.3	164	164	164	0.2	164	164	728	4.0	820	17061	17532	2.6	164	492	984
18000-19000	0.5	164	164	164	0.5	164	164	326	7.6	2034	16076	16722	6.1	164	492	984
19000-20000	0.1	164	164	164	0.0				1.1	7119	15092	15617	2.3	728	492	820

1200Z

FIGURE B-17-3-D

B-278

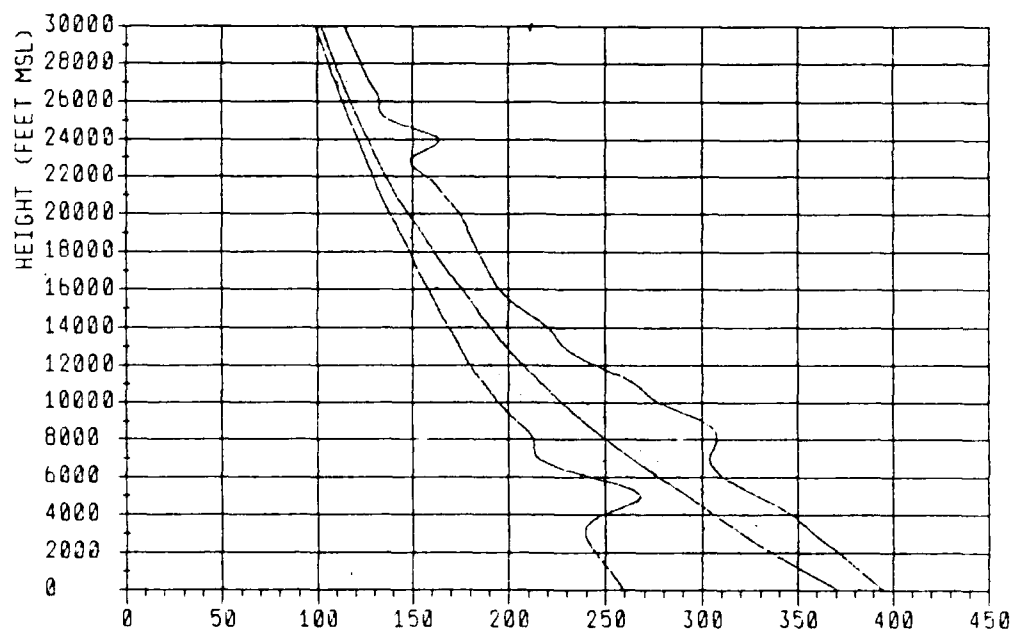
MANAUS

N PERCENTILES

DRY-WET TRANSITION

NO DATA AVAILABLE

N (N-Units) 0000Z



N (N-Units) 1200Z

FIGURE B-17-4-A

B-279

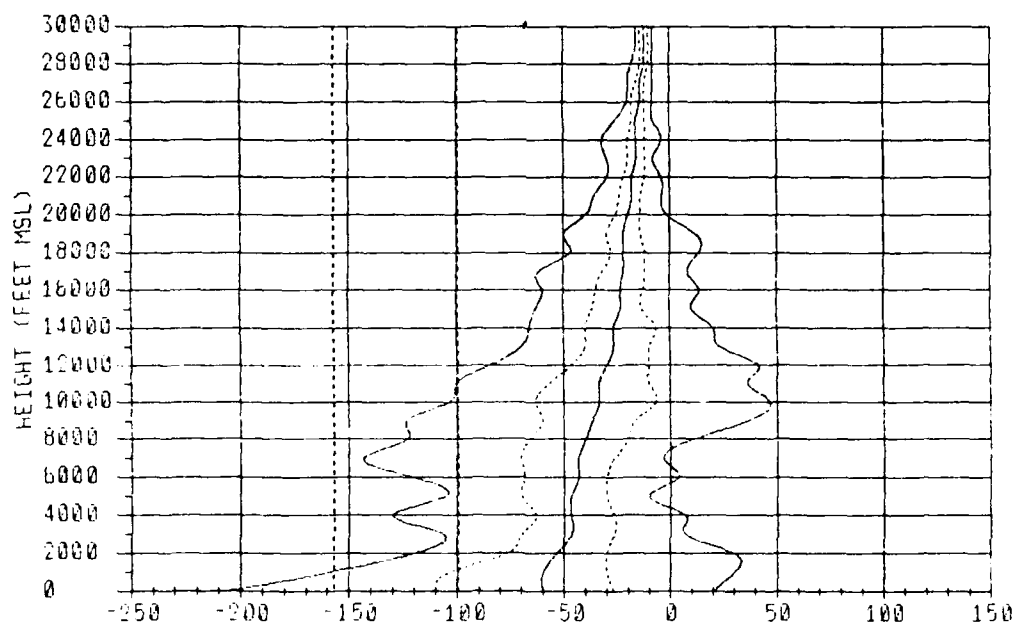
MANAUS

DRY-WET TRANSITION

GRADIENT PERCENTILES

NO DATA AVAILABLE

DNDH (N-Units/KM) 0000Z



DNDH (N-Units/KM) 1200Z

FIGURE B-17-4-B

NO DATA AVAILABLE

0000Z

HGT FT MSL	N PERCENTILES					DNDR PERCENTILES					PERCENT OCCURRENCE		
	1%	10%	50%	90%	99%	1%	10%	50%	90%	99%	DULT	SKLR	SUR
0FC-500	239.23	344.34	377.00	387.25	398.52	-385.37	-153.33	-58.33	-20.83	171.44	14.7	21.1	13.3
500-1000	234.22	344.04	368.88	379.54	390.85	-193.75	-108.73	-60.41	-27.08	12.50	5.7	15.4	2.5
1000-1500	252.40	342.25	358.88	370.75	385.19	-181.25	-104.25	-60.41	-31.25	4.17	5.0	19.2	1.5
1500-2000	248.21	332.24	348.81	341.19	377.45	-144.64	-95.83	-54.25	-29.87	8.04	2.9	10.7	1.9
2000-2500	244.12	322.25	339.54	352.25	371.04	-120.62	-77.08	-52.08	-27.08	4.25	0.4	4.6	2.1
2500-3000	240.13	314.29	330.88	343.50	363.12	-100.00	-68.75	-50.00	-27.08	4.25	0.2	1.7	1.9
3000-3500	236.10	306.57	322.88	334.49	354.04	-89.58	-64.58	-47.91	-27.08	8.10	0.0	1.0	1.9
3500-4000	233.01	303.25	314.00	327.19	350.00	-112.50	-64.58	-45.83	-27.08	4.04	0.8	2.1	2.1
4000-4500	229.40	294.54	309.00	319.54	334.64	-114.64	-62.50	-45.83	-26.64	10.42	0.6	1.9	1.7
4500-5000	224.40	290.11	302.58	312.75	329.34	-122.91	-64.58	-45.75	-25.00	22.91	1.3	3.8	3.8
5000-6000	221.44	277.75	291.19	303.04	318.19	-108.33	-68.75	-45.75	-29.14	-10.42	0.8	3.4	1.7
6000-7000	214.33	262.50	277.00	287.54	304.04	-111.89	-64.64	-45.75	-27.08	-8.37	1.0	2.5	1.5
7000-8000	207.43	246.59	263.49	274.25	290.82	-139.84	-63.41	-41.64	-25.00	-2.42	2.3	3.8	1.7
8000-9000	201.05	230.42	250.50	261.47	274.99	-114.64	-60.02	-39.58	-20.05	14.64	1.3	5.4	4.4
9000-10000	195.10	219.20	237.80	249.00	268.09	-113.28	-54.64	-38.71	-18.64	34.71	1.1	4.2	8.2
10000-11000	189.40	209.40	224.80	238.10	249.84	-100.00	-54.44	-33.33	-13.41	40.10	1.9	5.8	10.9
11000-12000	183.00	199.20	215.90	227.30	244.21	-93.36	-50.00	-30.07	-14.64	23.30	0.8	2.1	8.3
12000-13000	177.30	190.40	204.90	217.00	229.89	-80.07	-43.36	-29.95	-14.64	23.44	0.6	1.5	6.9
13000-14000	171.70	182.20	198.10	207.40	219.68	-69.27	-39.97	-24.49	-13.28	14.64	0.0	0.4	4.3
14000-15000	166.09	175.52	189.90	198.20	207.71	-64.64	-34.71	-24.54	-13.28	13.67	0.2	0.4	4.2
15000-16000	161.00	169.71	182.50	190.00	198.02	-54.64	-33.33	-23.44	-13.28	4.44	0.0	0.2	4.4
16000-17000	155.84	163.40	175.00	182.30	189.88	-54.98	-33.98	-23.98	-14.04	7.52	0.8	0.4	4.1
17000-18000	150.90	154.90	167.10	173.90	181.20	-47.94	-30.00	-22.03	-13.98	8.05	0.0	0.2	4.1
18000-19000	144.10	151.50	159.80	166.33	173.59	-50.00	-30.00	-21.95	-13.98	7.97	0.4	0.2	5.8
19000-20000	140.78	145.50	152.50	158.50	165.44	-47.94	-30.00	-21.95	-13.98	0.00	0.2	0.2	5.1
20000-21000	135.77	140.00	144.20	151.70	154.83	-41.95	-24.01	-20.00	-13.98	0.00	0.4	0.4	1.8
21000-22000	131.40	134.90	140.10	145.50	150.50	-34.01	-23.98	-18.04	-13.98	-3.98	0.0	0.0	1.8
22000-23000	127.45	130.20	134.80	139.40	144.39	-30.00	-21.95	-17.94	-12.03	-2.92	0.0	0.0	2.2
23000-24000	123.00	125.40	129.30	133.80	138.45	-27.94	-20.00	-14.01	-11.95	-3.98	0.2	0.0	1.4
24000-25000	119.00	121.00	124.50	128.10	133.94	-24.01	-20.00	-15.94	-11.95	-4.01	0.4	0.4	2.0
25000-26000	115.00	114.90	119.70	123.00	124.75	-23.98	-17.94	-14.04	-11.95	-8.00	0.2	0.0	0.2
26000-27000	111.20	115.00	115.40	118.20	120.94	-20.00	-14.01	-13.98	-11.95	-7.97	0.0	0.0	0.4
27000-28000	107.14	108.40	111.00	115.40	115.80	-18.04	-14.01	-13.98	-11.95	-7.97	0.0	0.0	0.0
28000-29000	103.70	104.90	104.80	109.00	110.77	-17.94	-14.04	-12.03	-10.00	-7.97	0.0	0.0	0.0
29000-30000	100.22	101.40	103.15	105.00	104.80	-14.01	-13.98	-12.03	-10.00	-7.97	0.0	0.0	0.0
30000-31000	94.90	98.00	99.40	101.72	102.40	-14.04	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.2
31000-32000	93.70	94.70	94.20	97.90	99.10	-14.01	-12.03	-11.95	-10.00	-7.97	0.0	0.0	0.4
32000-33000	90.00	91.10	92.40	94.20	95.50	-12.03	-12.03	-10.00	-10.00	-8.05	0.0	0.0	0.0
33000-34000	84.80	87.90	89.20	90.40	91.50	-13.98	-12.03	-10.00	-10.00	-7.97	0.0	0.0	0.0
34000-35000	84.50	85.70	84.40	87.40	88.40	-11.95	-10.00	-10.00	-10.00	-7.97	0.0	0.0	0.0

1200Z
FIGURE B-17-4-C
B-281

THICKNESS STATISTICS

NO DATA AVAILABLE

0000Z

BASE FT. MSL	WFRQ	DUCTS THI. PERCENTILES			WFRQ	GRASS THI. PERCENTILES			WFRQ	NORMAL THI. PERCENTILES			WFRQ	SUB THI. PERCENTILES		
		10%	50%	90%		10%	50%	90%		10%	50%	90%		10%	50%	90%
SFC-5000	13.8	20	20	512	21.1	20	118	566	90.2	492	10059	54995	13.2	20	98	584
5000-10000	21.7	98	394	541	8.2	98	442	1061	7.1	98	6644	74561	11.5	98	492	684
10000-15000	21.7	98	394	541	10.5	98	295	886	14.4	522	17849	34084	0.6	98	394	686
15000-20000	11.5	98	346	492	7.8	98	492	974	5.9	1014	11516	35597	11.7	295	591	1047
20000-25000	0.2	591	591	591	1.3	98	295	886	2.7	116	20972	35102	11.0	98	640	1080
25000-30000	0.0				0.6	98	98	197	2.7	1221	11221	32435	0.6	98	148	1181
30000-35000	0.0				0.8	591	537	1278	11.0	98	31924	32120	0.8	594	1132	1575
35000-40000	0.6	195	591	787	1.2	98	591	591	1.1	98	6545	21628	1.1	98	984	1181
40000-45000	0.2	591	591	591	0.4	98	344	591	1.3	5807	30742	31058	0.2	986	886	886
45000-50000	1.0	197	295	591	3.6	98	197	287	5.5	1087	13123	30546	2.1	118	295	744
50000-60000	0.4	295	295	195	2.5	98	344	545	5.2	98	4232	29955	0.8	98	295	1178
60000-70000	1.0	197	394	492	2.7	128	541	758	3.1	2106	10056	29069	0.6	689	984	1378
70000-80000	1.9	267	344	432	7.1	98	344	627	3.1	98	2067	27356	1.3	98	1575	2264
80000-90000	1.1	98	197	394	4.1	98	344	640	6.3	98	2067	26835	3.1	98	591	1969
90000-100000	1.1	197	197	394	3.1	98	295	650	6.7	98	2756	25722	6.1	98	640	1181
100000-110000	1.7	98	197	295	7.6	98	197	492	11.9	98	8957	24935	6.5	98	492	1280
110000-120000	0.6	98	98		11.5	98	295	394	7.1	98	9613	27852	4.4	98	787	1693
120000-130000	0.6	98	197	295	1.5	98	197	394	6.9	98	6168	22868	3.5	98	787	1673
130000-140000	0.0				0.4	98	148	197	4.0	98	21096	21490	4.4	98	787	1406
140000-150000	0.2	98	98	98	0.4	98	197	295	4.6	98	7598	20801	2.9	98	492	1729
150000-160000	0.0				0.2	98	98	98	4.4	98	4166	19856	3.1	98	541	1099
160000-170000	0.8	98	164	164	0.6	164	164	164	3.3	751	4019	18714	1.9	112	656	1115
170000-180000	0.0				0.2	164	164	164	3.9	1411	17225	17781	2.9	164	656	984
180000-190000	0.6	164	164	164	0.2	164	164	164	5.0	1509	16404	16897	4.8	164	728	984
190000-200000	0.2	164	164	164	0.2	164	164	164	3.7	2165	15420	15748	1.6	164	574	1148

1200Z

FIGURE B-17-4-D

B-282

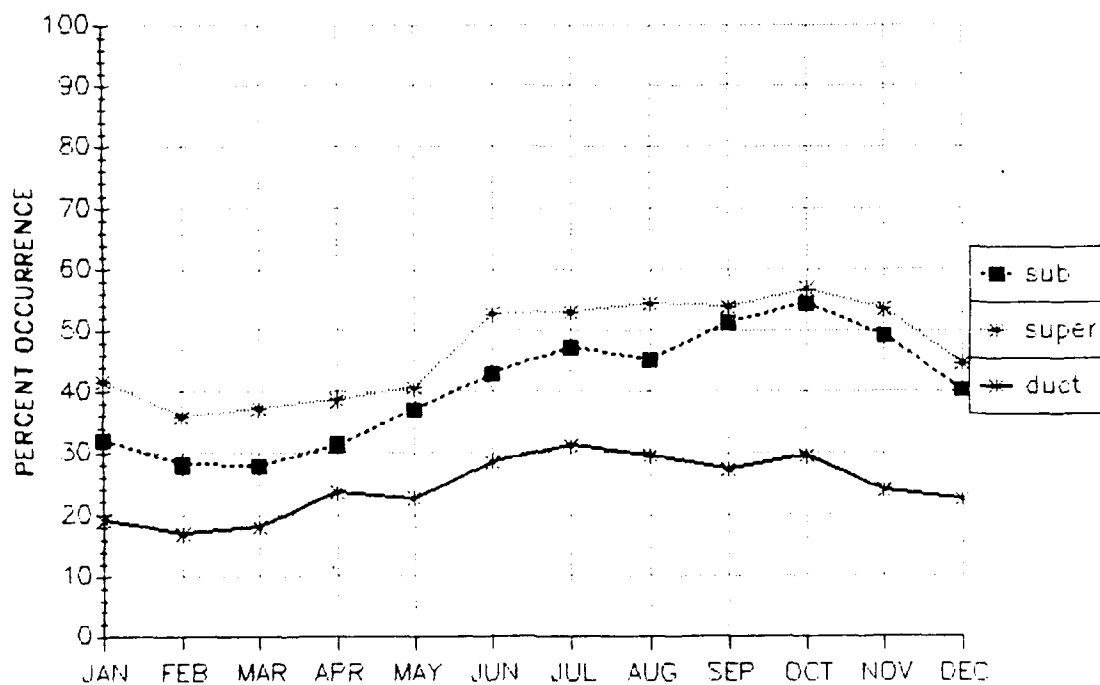
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FIGURE B-17-5

B-283

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